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***CALIFORNIA PREVENTION REPORT:
DELIVERY OF HIGH-YIELD CLINICAL
PREVENTIVE SERVICES BY MANAGED HEALTH CARE
PLANS IN CALIFORNIA***

A Project of the Advisory Committee on Managed Health Care
Submitted to the Director, Department of Managed Health Care
December 2001

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CALIFORNIA HEALTHCARE FOUNDATION*

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NOTE FROM THE CHAIR

The *California Prevention Report* is a project of the Health Care Education and Access Subcommittee of the California Department of Managed Health Care's Advisory Committee on Managed Health Care. The members of the Subcommittee and Committee are charged with assisting and advising the Department's Director, Daniel Zingale, in the implementation of his duties under the Knox-Keene Act. The Committee and Subcommittee also make recommendations on ways managed health care plans in California can better serve their enrolled members by ensuring access to high-quality, accountable services and effective prevention programs that promote healthier Californians.

Managed care plans and organized systems of care are increasingly accountable for not only healing the sick, but also for continually improving the health status of their enrolled populations. Clinical preventive services are an integral component of managed health care in that together they constitute an effective strategy for improving health status and cost-effective use of health care dollars.

The members of the Health Care Education and Access Subcommittee are committed to promoting quality health care. The *California Prevention Report* represents the culmination of extensive, year-long committee discussions, public hearings and commentary, and health services research regarding the development and management of effective prevention programs that can be delivered in managed care settings. Based on available data and national standards, these discussions have led us to develop a series of recommendations that we feel will advance the delivery of appropriate, high-yield clinical preventive services in managed care settings.

Many proven effective clinical preventive services are delivered at low rates in California and, consequently, reach only a small portion of the population in need of them. In addition to presenting a picture of prevention in California, this *Report* provides information for decision-makers about recommended first steps necessary to improve the delivery of highly valuable clinical preventive services in our state.

Naomi Strom, Chair
Health Care Education and Access Subcommittee

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**DEPARTMENT OF MANAGED HEALTH CARE
COMMITTEE AND SUBCOMMITTEE ADVISORY MEMBERS**

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Subcommittee Abbreviations:

QPM is Quality and Performance Measurement

RIS is Regulatory Implementation and Structure

HCEA is Health Care Education and Access

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The *California Prevention Report* is the result of the cooperative efforts of many individuals and organizations in California.

The project's methodology is based on research support by the Partnership for Prevention and the Centers for Disease Control and Prevention. Ashley B. Coffield, MPA, formerly President, Partnership for Prevention, Washington DC, was instrumental in developing the research methodology for prioritizing clinical preventive services from the national perspective. Based on this research, she advised members of the Health Care Education and Access Subcommittee and staff of the Center for Health Improvement about the implications of this research for Californians. Jonathan Fielding, MD, MPH, MBA, Director of Public Health, Los Angeles County, and Margaret Taylor, Director of Health Services, San Mateo County Health Department, each provided valuable insights concerning the delivery of prevention locally. These considerations influenced the approach to data collection for this report. Brad Myers, Senior Communications Specialist, Centers for Disease Control and Prevention, furnished information about the guidelines for community-based prevention and its value in supporting and complementing clinical preventive care. As appropriate, these have also been incorporated into the report.

We are greatly indebted to the individuals and organizations in California that graciously donated their time in assisting with the development of the *Report*: Vivian Barron, Director, Integrated Health, Hill Physicians Medical Group; Dale Bonner, Hogan and Hartson; Gifford Boyce-Smith, MD, Medical Director, Blue Shield of California; John M. Clymer, President, Partnership for Prevention; Rosaleen Derington, MBA, Senior Vice President, Health Services, Hill Physicians Medical Group; Patricia A. Ganz, MD, Director, Division of Cancer Prevention & Control Research, Jonsson Comprehensive Cancer Center; Jeffrey R. Harris, MD, MPH, University of Washington, School of Public Health; Joel Hyatt, MD, Director, Care Management and Value Demonstration, Southern California Permanente Medical Group; David Joyner, Vice President, External Affairs, Blue Shield of California; Neal Kohatsu, MD, MPH, Medical Director, Medical Board of California; Steve McDermott, Hill Physicians Medical Group; Mike Ralston, MD, Director of Quality Demonstration, The Permanente Medical Group; Jeffrey A. Rideout, MD, Senior Vice President and Chief Medical Officer, Blue Shield of California; Paul V. Stange, Health Systems Specialist, Office of Health Care Partnerships, Centers for Disease Control and Prevention; Annette Yerby, Director, Quality Management, Hill Physicians Medical Group; and Stephanie Zaza, MD, MPH, Medical Epidemiologist, Division of Prevention Research & Analytical Methods, Centers for Disease Control and Prevention.

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EXECUTIVE SUMMARY

Introduction

The *California Prevention Report* is a project of the California Department of Managed Health Care's Advisory Committee on Managed Health Care. Many proven, clinical preventive services are delivered at low rates in California and, consequently, reach only a small portion of the population in need of them. The project's goals were to examine existing service delivery data from managed health care plans and to develop recommendations for priority actions to increase utilization of effective clinical preventive services throughout the managed care system in California.

Methodology

The *California Prevention Report* is based on national research that ranked 30 clinical preventive measures recommended by the U.S. Preventive Services Task Force by two dimensions: the burden of disease prevented by each service; and the service's cost effectiveness. Each service was scored on each of the two dimensions for a total score of up to 10 points. Current national delivery rates for the services with high rankings were also identified. Table 3 in the report (page 24) presents these national rankings with the boldfaced services indicating low delivery rates (below 50 percent) to the U.S. population eligible for the service. (The research was published in the July 2001 issue of the *American Journal of Preventive Medicine*.¹)

To determine the extent to which these national priorities meet the needs of California's managed care population groups, the Center for Health Improvement's research involved three parts. CHI staff and consultants:

- Reviewed existing California data and literature to determine current delivery rates for managed care enrollees for the 14 top-ranked national services.
- Examined the underutilized services to identify contributors to low delivery rates.
- Conducted key informant interviews with representatives from state health agencies, local public health providers, health plans, and constituent groups to determine their priorities for promoting clinical preventive services within their delivery settings.

Results

Examination of California's delivery rates in managed care plans for the 14 top-ranked national services revealed that five services were delivered at rates below 50 percent (see Table 1 on the next page).

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TABLE 1:

**High-Yield Preventive Services with Low Delivery Rates
in California's Managed Care Population, 1998-2000**

Recommended Services, and Specific Measures Reported	Delivery Rates
A. Assess adults for tobacco use and provide tobacco cessation counseling	
Smokers and recent quitters aged 18 years and older who had seen a health practitioner in the year and who received advice to quit smoking during the year	55% ¹
Smokers aged 18-64 years who reported that their physician had discussed smoking with them in the past 3 years	65% ²
Covered workers aged 18-64 years in employer-sponsored HMOs with behavioral smoking cessation program as a covered benefit	30% ³
B. Screen for vision impairment among adults aged 65 and over	
VSP Medicare managed care plan members aged 65 years and older who received a well vision exam during the past year	36% ⁴
C. Screen for colorectal cancer (FOBT and/or sigmoidoscopy) among persons aged 50 years and older	
Adults aged 50 years and older who received FOBT during the past year and/or sigmoidoscopy/colonoscopy in the past 5 years	39-45% ⁵
Adult members of medical groups/IPAs, aged 50 years and older, who received FOBT during the past year and/or sigmoidoscopy/colonoscopy in the past 5 years	65% ⁶
D. Screen for chlamydia among women aged 15 to 24 years	
Sexually active women aged 16-20 who received at least one test for chlamydia during the year	19% ¹
Sexually active women aged 21-26 who received at least one test for chlamydia during the year	16% ¹
Women aged 18-19 years old who received a chlamydia test in the past 12 months	53% ⁷
Women aged 20-24 years old (and reporting a new male sexual partner in the past 12 months) who received a chlamydia test in the past 12 months	43% ⁷
E. Screen for problem drinking among adults and provide brief counseling	
Adults aged 18-64 years at risk for alcohol abuse who reported that their physician had discussed alcohol with them in the past 3 years	27-34% ²
Adults aged 18-64 years who reported that their physician had discussed alcohol with them in the past 3 years	18-21% ⁸
Adult members of medical groups/IPAs, aged 18-70 years who reported that their doctor or other health professional had discussed alcohol/substance abuse with them in the past 2 years	8-10% ⁶

¹California HEDIS® 2001 data (for year 2000); as reported by CCHRI

²California BRFS 1999; based on analysis conducted by Health Insurance Policy Program, UC Berkeley in September-October 2001. Ranges reflect independent rates for HMOs and PPOs.

³Kaiser/HRET/UC Berkeley California Employer Health Benefits Survey, 1999; as reported in Schauffler HH and Brown ER, *The State of Health Insurance in California, 1999*.

⁴VSP Administrative Claims Data for 2000; unpublished analysis conducted September-October 2001

⁵California BRFS 1999; as reported in Schauffler, H and McMenamin, S. Assessing PPO Performance on Prevention and Population Health. *Medical Care Research and Review*, 2001; 58(s1):113-137. Ranges reflect independent rates for HMOs and PPOs.

⁶PBGH Physician Value Check Survey, 1998. Range reflects independent rates for Northern and Southern California.

⁷California Women's Health Survey 2000; unpublished preliminary data from California Department of Health Services, Sexually Transmitted Disease Control Branch

⁸California BRFS 1999; as reported in Schauffler HH and Brown ER, *The State of Health Insurance in California, 1999*. Ranges reflect independent rates for HMOs and PPOs.

Improving delivery rates for each of the foregoing services constitutes an important missed opportunity for preventing disease and promoting health.

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Recommendations

Notwithstanding the tremendous potential for increased delivery of preventive care by managed health care organizations in California, several caveats underlie the *Report's* recommendations. First, the greatest potential for improving the health status of *populations* results from community-based actions (e.g., tobacco policies that reduce smoking in public areas). Clinical preventive services and community efforts should be complementary and have similar goals. Second, access to and utilization of recommended preventive services often depends on more than insurance coverage; they also depend on educated consumers who know why preventive care is important and are motivated to use the services appropriately. Third, many clinical preventive services are not “cost neutral.” Few pay for themselves in the short-term through reductions in direct health care costs across a population at average risk for the targeted condition. Therefore, careful consideration of the benefits and additional incentives that support investing in prevention may be necessary.

The following recommendations were developed for consideration by the Director, Department of Managed Health Care. The first five recommendations address issues related to the five services with low delivery rates. Recommendations six through nine address issues of a cross-cutting nature and are derived from other important data in this report, examination of the literature and discussions with stakeholders.

Recommendation #1: Smoking Cessation

Although much of our knowledge about helping smokers to quit remains incomplete, there is more than enough evidence to act. Coverage for effective pharmacologic and counseling interventions to assist smokers to quit is incomplete and inconsistent among health plans. The Director of the Department of Managed Health Care can improve access to appropriate interventions by:

- ✓ Working with purchasers and managed care plans in California to implement policies that reinforce the view that tobacco dependence is a chronic condition.
- ✓ Promoting, as a covered benefit, tobacco cessation counseling and pharmacotherapies identified as effective, as well as adequate reimbursement for the provision of tobacco dependence treatment. (Special attention should be paid to coverage and delivery of cessation services to pregnant women, consistent with the *Practice Guidelines* issued by the Surgeon General in June 2000.)

Recommendation #2: Colorectal Cancer Screening

Despite the call for specific screening tests and/or periodic sigmoidoscopy for all persons aged 50 or older by whatever method or combination of screening techniques is currently recommended, adherence is low – 50 percent or less. Screening rates may be low due to poor patient compliance, disputes about the quality of the evidence supporting screening tests, the costs and risks associated with some tests, and the availability of clinicians trained in performing some of the screening. Given these

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barriers, the Director of the Department of Managed Health Care can adopt a multi-pronged educational strategy that focuses on:

- ✓ Convening a group (consumers, health plan medical directors, as well as healthcare purchasers) to gain consensus on an appropriate colorectal screening strategy (or strategies) and ways to promote its/their delivery to California managed health care enrollees age 50 and older.
- ✓ Providing consumer education to enrolled Californians age 50 and older about endoscopic procedures and other tests available to them as a covered benefit to screen for colorectal cancer.
- ✓ Promoting patient education about the benefits and risks of screening as a way to increase compliance with clinical recommendations.

Recommendation #3: Vision Screening

Critical information about the delivery and utilization of many beneficial clinical preventive services, including visual acuity screening services for older Californians, is lacking but may be available through administrative data or other sources. To develop an accurate picture of the delivery of important clinical preventive services, the Director of the Department of Managed Health Care can provide leadership by:

- ✓ Identifying potential sources of preventive health data – e.g., survey data such as the Department of Health Services' Behavioral Risk Factor Surveillance System or administrative data such as that from Vision Service Plan of California – to determine the feasibility, cost, and utility of these data in describing delivery patterns among managed health care plans in California.
- ✓ Coordinating efforts with the Department of Motor Vehicles, which performs vision screening of older adults, to assess the possibility of strengthening processes for identifying at-risk persons and referring them to appropriate vision care providers. This information should be useful in advocating for the development of prevention-oriented performance measures at national levels and serve as one strategy to promote delivery of such important care.
- ✓ Linking new data about the delivery of clinical preventive services to the DMHC Report Card published annually.

Recommendation #4: Chlamydia Screening

Reduction in chlamydia infections requires that managed care providers be aware of the high prevalence of chlamydia and the need to screen asymptomatic patients. It also requires that they counsel chlamydia patients to arrange for treatment of sexual partners, routinely obtain a sexual history and counsel all sexually active patients about the risks of sexually transmitted diseases. The Director of the Department of Managed Health Care can facilitate broader coordinated efforts by:

- ✓ Developing model clinical practice guidelines for chlamydia screening and treatment for adoption by medical policy committees in managed care organizations and

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medical groups. This would include advocating for: (1) delivery of chlamydia screening services for at-risk patients in other potential points of clinical service (e.g., sports physicals, urgent care settings and emergency rooms); (2) use of non-invasive chlamydia screening tests for males and for females in settings where pelvic examinations are not routinely done; and (3) establishment of chlamydia screening as a standard of care in prenatal examinations.

Recommendation #5: Problem Drinking

Integrating alcohol assessment and counseling as a routine part of practice within managed health care organizations is challenging due to provider- and system-level barriers. Clinicians need tools, training and evidence of effectiveness tailored to their specific concerns. The Director of the Department of Managed Health Care can provide assistance in developing and disseminating credible counseling models for use in managed care settings by:

- ✓ Making information available about the cost, efficacy, and implementation of successful alcohol counseling/behavioral change interventions within managed care organizations.
- ✓ Convening payers and stakeholders to review evidence and develop a model benefit for counseling as part of routine care; and
- ✓ Working with the Office of the Patient Advocate and others to identify effective ways to encourage consumer demand for behavior counseling as part of routine care, including pursuing alliances with consumer groups that engage patients in their own health and health care.

Recommendation #6: Closing the Gaps

The second of two major goals of *Healthy People 2010* is to eliminate health disparities among segments of the population. These differences in health status may occur by gender, race or ethnicity, age, education or income, disability status, geographic area or sexual orientation. It was beyond the scope of the *Report* to examine delivery rates in depth among subpopulations. However, in consideration of the Department's oversight role in assuring access to quality medical care services for all populations enrolled in managed health care plans in California, the Director of the Department of Managed Health Care can build upon this *Report* by:

- ✓ Improving data collection methods, wherever feasible, so that it is possible to accurately assess at the state level the health status of subpopulations in California – including identifying, using, and expanding health-related data residing in other State agencies.
- ✓ Examining key policies to ensure equal access to comprehensive, preventive care and that culturally competent and relevant clinical preventive services are available and accessible for all people seeking care in managed health care plans.

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Recommendation #7: Improving Services for Children

Infectious diseases remain a major cause of illness, disability and death. With 65 percent of California's managed care toddlers fully immunized with five of the recommended vaccines, and 69 percent immunized against varicella, delivery rates are above the 50 percent delivery rate criterion for action utilized in this report's methodology. However, this rate falls far short of the national goal of 90 percent established for achieving and maintaining effective vaccination coverage levels. Since childhood vaccination is a clinical preventive service for which there is:

- Coverage;
- Professional consensus about efficacy;
- System-wide coordination (including collaboration with public health);
- Data collection mechanisms to describe and track its delivery through HEDIS[®];
- Relatively high levels of consumer/parent awareness;

the Director, Department of Managed Health Care, should seek ways to increase vaccine delivery by:

- ✓ Collaborating with the Department of Health Services to develop a statewide immunization registry, including development of incentives for health plans to contribute data to the registry.

Recommendation #8: Risk Adjusting for Prevention

The analytic perspective of the Coffield et al study, upon which much of this report is based, is one of how provision of clinical preventive services to targeted populations is of benefit to society. As such, this analysis does not address the specific needs of populations served by individual health plans. The Director of the Department of Managed Health Care can encourage the development of a managed care prevention model for increased delivery of recommended clinical preventive services by:

- ✓ Seeking funding or providing other support to interested health plans for the initiation of an internal process to develop an enrollee profile (e.g., demographics, health status, receipt of preventive services, risk factors, and other information), which would be linked to the health plan's prevention priorities for appropriately promoting one or more of the clinical preventive services mentioned in this report.

Recommendation #9: Capitalizing on Models Being Developed by Other States

The Centers for Disease Control and Prevention is working with three states (Connecticut, Colorado, and Michigan) and their respective health plans and purchasers to increase the provision of clinical preventive services. Additionally, the Institute for Healthcare Innovation, Group Health of Puget Sound, and the Institute for Health Services Research each have worked toward developing models for disease management and prevention in collaboration with health plans and medical groups. The Director of the Department of Managed Health Care can facilitate sharing of lessons learned by:

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- ✓ Commissioning a review of pertinent literature and by taking steps to identify credible prevention models developed specifically for managed care settings. The Director should work with the medical directors of health plans to organize a method to systematically review the structure, implementation, effectiveness and outcomes of these models, and make that information widely available to California health plans.

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ABOUT THIS REPORT

Changes in the health care system in California provide managed health care organizations with new opportunities to improve delivery rates of valuable preventive care. Managed health care organizations are rapidly becoming the major source of health care for beneficiaries of employer-funded care and of the publicly funded Medi-Cal and Medicare programs. In light of the potential role of managed care in prevention, the Director of the California Department of Managed Health Care charged the Advisory Committee on Managed Health Care with developing a list of recommendations that would foster the incorporation of more prevention practices into managed care.

In November 2000, the Health Care Education and Access Subcommittee began its deliberations on ways the rapidly evolving managed care industry in California could promote prevention and improve Californian's overall health. In January 2001, the Subcommittee outlined an approach for setting priorities. The Subcommittee then invited representatives of key national, state and local groups – the Centers for Disease Control and Prevention Task Force on Community Preventive Services, the Partnership for Prevention, local health departments – as well as members of the public, to comment on its prevention priorities. In August 2001, the Department contracted with the Center for Health Improvement to develop recommendations for “high yield” ways to improve the delivery of preventive health care in California. This report concludes with these recommendations.

Notwithstanding the tremendous potential for increased delivery of preventive care by managed health care organizations in California, several caveats or assumptions exist that underlie the *Report's* recommendations. First, the greatest potential for improving the health status of populations results from community-based actions (e.g., tobacco policies that reduce smoking in public areas). Clinical preventive services and community efforts should be complementary and have similar goals. Second, access to and utilization of recommended preventive services often depends on more than insurance coverage; it also depends on educated consumers who know why preventive care is important and are motivated to use the services appropriately. Third, many clinical preventive services are not “cost neutral.” Few pay for themselves in the short-term through reductions in direct health care costs across a population at average risk for the targeted condition. Therefore, careful consideration of benefits and additional incentives that favor investing in prevention may be necessary (e.g., performance measures that are prevention oriented).

Rationale for Report's Focus on Preventive Services

For much of the last century in the United States, the decrease in the prevalence rate of acute illnesses and infectious diseases has led to the emergence of chronic diseases as the major cause of morbidity and mortality in the U.S. Yet approximately half of the nation's premature deaths from the ten leading causes of mortality are attributable to factors that can be controlled or modified – e.g., tobacco use, alcohol and drug misuse,

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unhealthful diet, lack of exercise, unsafe sexual behavior, to name a few.² These health risks are also linked to higher rates of ambulatory care utilization and hospitalization costs, with preventable illness accounting for as much as 70 percent of all medical care spending.³

TABLE 2:

**2001 State Health Rankings . . .
California Places 22nd**

Rank	Rank Order	State
1		Minnesota
2		New Hampshire
3		Utah
4		Connecticut
5		Massachusetts
.		
.		
22		California
.		
.		
46		Florida
47		West Virginia
48		South Carolina
49		Mississippi
50		Louisiana

Source: *UnitedHealth Foundation, State Health Rankings – 2001 Edition, September 2001.*

As shown in the table to the left, there are opportunities to improve Californians' health. The state's 22nd ranking was derived from a 2001 report, *America's Health: UnitedHealth Foundation State Health Rankings*, which considers states' smoking rates, obesity, heart disease, cancer rates, and the incidence of infectious diseases, among other indicators.⁴

Thanks to the work of the U.S. Preventive Health Services Task Force, the Cochrane Collaboration, the Agency for Healthcare Research and Quality and other groups, a good deal is now known about effective means of preventing disease and promoting health status through systematic, evidence-based interventions. Yet our healthcare system has not taken full advantage of that knowledge.

This is especially true in light of the fact that there are ample opportunities for prevention. Americans make some 829,200,000 office visits to their doctors each year, for an average of 3.1 visits per person.⁵

Integrating clinical preventive services into standard health care delivery stands to provide the majority of people in California with access to the assistance they need to reduce health risks, better manage chronic conditions, and take advantage of appropriate prevention technologies. Due to its penetration in California, managed care, in particular, offers a clinical setting with incentives to apply the lessons learned from decades of prevention and behavioral research. Since there are several competing demands within healthcare delivery systems, knowledge that a given clinical preventive service is effective in a research setting is seldom sufficient to promote its delivery in the real-world environment of the typical medical office or clinic. What is lacking has been a framework for establishing the value of competing clinical preventive services for average-risk patients. Knowledge about top-ranking services, based on their cost-effectiveness and the proportion of disease prevented in usual practice, coupled with evidence of particularly low delivery rates can provide a sound basis on which to improve the delivery of clinical preventive services in California.

The Research Upon Which this Report is Based

The *California Prevention Report* is based on national research that ranked 30 clinical preventive measures recommended by the U.S. Preventive Services Task Force by two

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dimensions: the burden of disease prevented by each service; and the service's cost effectiveness. The research was reported in the July 2001 issue of the *American Journal of Preventive Medicine*.⁶ In this article, Coffield and her colleagues describe the methodology utilized. A 25-member committee—consisting of health plan medical directors, public and private purchasers of healthcare, state and local public health officials, clinicians, and consumer advocates – was convened by the Partnership for Prevention. This committee was responsible for identifying national clinical prevention priorities. Their analyses include services recommended by the U.S. Preventive Services Task Force for average-risk patients as part of periodic health examinations outlined in the second edition of the *Guide to Clinical Preventive Services*.⁷ Preventive services for subpopulations were excluded from the Coffield analyses, and tertiary prevention strategies (e.g., screening for retinal, renal and peripheral vascular disease among diabetics) also were not considered.

Assessment of the value of each service was based on two dimensions: the burden of disease prevented by each service; and the service's cost effectiveness. Clinical preventable burden refers to the proportion of disease and injury prevented by the clinical preventive service if the service were delivered to 100 percent of the target population at recommended intervals. Thus, clinical preventable burden equals the burden of the disease targeted by the service and the effectiveness of the service, measured as the percentage of burden reduced over a consistent time frame. Cost effectiveness in the study was defined as the net cost of the clinical preventive service divided by a common measure, "quality-adjusted life years" (QALYs) saved. QALYs saved is a measure that combines years of life gained together with improvements in health-related quality of life. Additional information regarding the study methodology and related terms can be found in the published literature.^{8,9}

Each service was then scored (one to five points) on each of the two dimensions – clinical preventable burden and cost effectiveness, for a total score of up to ten points. Current national delivery rates for the services with high rankings were also identified, and services found to have delivery to the recommended U.S. population below 50 percent were identified. Table 3 on the next page presents these national rankings, with the boldfaced services indicating low delivery rates (below 50 percent) to the U.S. population eligible for the service.

To determine the extent to which these national priorities meet the needs of California's managed care population groups, the Center for Health Improvement's research involved three parts. California researchers initiated:

- Review of existing California data and literature to determine current delivery rates for managed care enrollees for the top 14 clinical preventive services in Table 3.
- Examination of the underutilized services to determine the reasons behind low delivery rates or lack of data.
- Key informant interviews with representatives from state health agencies, local public health providers, health plans, and constituent groups to determine their

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priorities and feelings about barriers and opportunities to promote clinical preventive services within their delivery settings.

Table 3: National Priorities Among Recommended Clinical Preventive Services

Services	CPB	CE	Total
Vaccinate children: DTP/DTPaP, MMR, Oral Polio/IPV, Hib, Hep B, Varicella	5	5	10
Assess adults for tobacco use and provide tobacco cessation counseling	5	4	9
Screen for vision impairment among adults aged 65 and older	4	5	9
Assess adolescents for drinking and drug use and counsel on alcohol and drug abstinence	3	5	8*
Assess adolescents for tobacco use and provide an antitobacco message or advice to quit	4	4	8*
Screen for cervical cancer among sexually active women or 18 years and older	5	3	8
Screen for colorectal cancer (FOBT and/or sigmoidoscopy) among all persons aged 50 years and older	5	3	8
Screen for hemoglobinopathies, PKU, and congenital hypothyroidism among newborns	3	5	8
Screen for hypertension among all persons	5	3	8
Vaccinate adults aged 65 years and older against influenza	4	4	8
Screen for chlamydia among women aged 15 to 24 years	3	4	7*
Screen for high blood cholesterol among men aged 35 to 65 years and women aged 45 to 65 years	5	2	7
Screen for problem drinking among adults and provide brief counseling	4	3	7*
Vaccinate adults aged 65 years and older against pneumococcal disease	2	5	7
Assess infant feeding practices and provide counseling on: breastfeeding, use of iron-enriched foods, risk of baby-bottle tooth decay	1	5	6
Assess risk of STDs (including HIV) and provide counseling on measures to reduce risk	3	3	6*
Screen for breast cancer (mammography alone or with CBE) among women aged 50 to 69 years	4	2	6
Screen for vision impairment at age 3 to 4 years	2	4	6*
Assess oral health practices and provide counseling on: brushing and flossing daily, visiting a dental care provider regularly	3	2	5*
Assess the safety practices of parents of children aged 0 to 4 years and provide counseling on: child safety seats, window/stair guards, pool fence, poison control, hot water temp, bicycle helmet	1	4	5*
Counsel on risks/benefits of hormone replacement among peri- and post-menopausal women	4	1	5*
Assess calcium/vitamin D intake of adolescent and adult women and counsel on use of supplements	2	2	4*
Assess folic acid intake among women of childbearing age and counsel on use of supplements	1	3	4*
Assess physical activity patterns of all persons aged 2 years and older and counsel on increasing activity levels	3	1	4*
Provide newborns with ocular prophylaxis to protect against gonococcal eye disease	1	3	4*
Screen for hearing impairment among persons aged 65 years and older.	2	2	4*
Assess dietary patterns of persons aged 2 years and older and provide counseling on: intake of fat/cholesterol; caloric balance; intake of fruits, vegetables, grains	2	1	3
Assess the safety practices of all persons aged 4 years and older and provide counseling on: seatbelt use, smoke detector use, firearm storage/removal from home, bicycle/motorcycle helmet use, dangers of alcohol use, protection against slip and fall hazards for older persons	2	1	3*
Screen for rubella among women of childbearing age using serology and/or history and vaccinate	1	1	2
Vaccinate all persons against tetanus–diphtheria (Td boosters)	1	1	2

Key: CPB=Clinical Preventable Burden. CE=Cost Effectiveness. Ranking is 1 to 5, with 5 being the highest rank. *Services for which total scores have greater uncertainty. Services in boldface are those with scores of 7+ for which available data indicate that delivery to the recommended U.S. population is below 50 percent. *Source:* Adapted from Coffield, p. 5.

A Word About California...

California is a bellwether state; its healthcare systems are monitored closely by policy-makers and advocates alike as an indicator of trends to come in the rest of the nation. With more than 33 million residents of the nation's 273 million people, the healthcare systems in California serve one of the largest and most diverse state populations in the nation. Compared with the United States, California has a smaller percentage of its population that is non-Hispanic White (50.3 percent versus 71.0 percent) or African American (6.5 percent versus 12.6 percent).¹⁰ And, it has much higher proportions of Hispanic (30.3 percent versus 11.7 percent) and Asian (12.2 percent versus 3.9

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percent) residents.¹¹ At 15.8 percent of its population, California has the highest non-citizen rate in the country.¹² New census data show that nearly 40 percent of Californians speak a language other than English.¹³ All of these demographic factors present challenges in delivering health care that is accessible, affordable, and that meets the needs of those the healthcare system serves.

California has a measurement and consensus infrastructure in place – the California Cooperative Healthcare Reporting Initiative (CCHRI) – that can assist with tracking mechanisms to operationalize some of the policy recommendations made in this report. CCHRI was founded in 1994 as a collaboration of purchasers, health plans and providers dedicated to giving California’s consumers important information about health plans. The Pacific Business Group on Health, a coalition of large purchasers, is responsible for administering CCHRI. Since 1995, CCHRI has released annual reports comparing California health plan performance against a common set of clinical indicators (Health Plan Employer Data and Information Set or HEDIS[®]) and member satisfaction survey data (CAHPS). Due to the growth of mixed models of managed care in California, CCHRI has also taken steps to measure provider-level performance at the medical group level through pilot studies, telephone surveys of providers, and patient surveys, such as the Physician Value Check Survey reported elsewhere in the *California Prevention Report*.

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SECTION I: MAJOR FINDINGS

Table 4 on the next pages lists the 14 most valuable clinical preventive services identified by national researchers.¹⁴ These services represent a subset of clinical preventive health services recommended by the U.S. Preventive Services Task Force (USPSTF) for the general population as part of periodic health examinations.¹⁵ Each of the 14 services listed received a score of 7 or higher out of ten, with ten being the most cost effective and most able to reduce the burden of disease using the national ranking methodology described by Coffield et al. Of the 14 services ranked highly based on this methodology, the majority (seven) are screening services; three are vaccine services; and four are counseling services.

Nationally, eight of the 14 top-ranked services were found to have average delivery rates below 50 percent to the service's target population.¹⁶ Similarly, within California managed care plans, five of the 14 services examined have delivery rates below 50 percent. The second column of Table 4 lists delivery rates for key components of the recommended service among targeted groups within California's managed health care enrolled populations. Improving delivery rates for each of these services constitutes an important missed opportunity for preventing disease and promoting health.

The benefits and selected aspects associated with improving delivery rates of these services are described in Section II

Other Findings

The Coffield et al study found that nationally six of the top 14 high-yield clinical preventive services are delivered at rates above 50 percent. Research completed for this report examined California data for all 14 measures. This research found that California health plans perform similarly, with delivery rates exceeding 50 percent for the same six services, as well as for pneumococcal vaccination for which recent data suggest national rates also now exceed 50 percent.

It should be noted that a delivery rate of above 50 percent, while commendable, is still short of many national targets for what can be achieved given the current state-of-the-art. Each of these high-yield, clinical preventive services has behind it convincing evidence that the benefits of delivery outweigh potential harms. The barriers to delivery of clinical preventive services are multiple and concern patient, health plan systems, and physician factors – some of which can be addressed through closer attention to prevention opportunities. The services where the state-level rate for delivery among all California managed care organizations is above the 50 percent mark (or for which there were insufficient data) are addressed in more detail at the end of this report in Appendix B: Other Findings.

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Table 4: Summary of Estimated Delivery Rates for Fourteen High-Yield Preventive Services in California's Managed Care Population, 1998-2000

Recommended Services*, and Specific Measures Reported	Delivery Rates
1. Vaccinate children: DTP/DTaP, MMR, Oral Polio/IPV, Hib, Hep B, Varicella Combo #1: DTP/DTaP, MMR, Oral Polio/IPV, Hib, and Hep B Varicella Combo #2: DTP/DtaP, MMR, Oral Polio/IPV, Hib, Hep B, and Varicella	65% ¹ 69% ¹ 52% ¹
2. Assess adults for tobacco use and provide tobacco cessation counseling Smokers and recent quitters aged 18 years and older who had seen a health practitioner in the year and who received advice to quit smoking during the year Smokers aged 18-64 years who reported that their physician had discussed smoking with them in the past 3 years Covered workers aged 18-64 years in employer-sponsored HMOs with behavioral smoking cessation program as a covered benefit	55% ² 65% ³ 30% ⁴
3. Screen for vision impairment among adults aged 65 and over VSP Medicare managed care plan members aged 65 years and older who received a well vision exam during the past year	36% ⁵
4. Assess adolescents for drinking and drug use and counsel on alcohol and drug abstinence	N/A ⁶
5. Assess adolescents for tobacco use and provide an anti-tobacco message or advice to quit	N/A ⁶
6. Screen for cervical cancer among sexually active women or age 18 years and older Women aged 21-64 years who received at least one Pap test in the past 3 years Women aged 18-64 years who received at least one Pap test in the past 3 years Female members of medical groups/IPAs, aged 21-64 years, who received a Pap smear in the past 3 years	76% ² 93-94% ⁷ 91-93% ⁸
7. Screen for colorectal cancer (FOBT and/or sigmoidoscopy) among all persons aged 50 years and older Adults aged 50 years and older who received FOBT during the past year and/or sigmoidoscopy/colonoscopy in the past 5 years Adult members of medical groups/IPAs, age 50 years and older, who received FOBT during the past year and/or sigmoidoscopy/colonoscopy in the past 5 years	39-45% ⁹ 65% ⁸
8. Screen for hemoglobinopathies, PKU, and congenital hypothyroidism among newborns Newborns screened under California Newborn Screening Program: phenylketonuria (PKU), galactosemia, congenital hypothyroidism, sickle cell disease and other hemoglobin disorders	>99% ¹⁰
9. Screen for hypertension among all persons Adults aged 18-64 years who received a blood pressure check in the past 2 years	92-95% ⁷
10. Vaccinate adults aged 65 years and older against influenza Medicare members aged 65 years and older who received a flu shot from September to December Adults aged 65 years and older who received a flu shot in the past 12 months	76% ¹¹ 74-78% ³

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Recommended Services*, and Specific Measures Reported	Delivery Rates
11. Screen for chlamydia among women aged 15 to 24 years	
Sexually active women aged 16-20 who received at least one test for chlamydia during the year	19% ²
Sexually active women aged 21-26 who received at least one test for chlamydia during the year	16% ²
Women aged 18-19 years old who received a chlamydia test in the past 12 months	53% ¹²
Women aged 20-24 years old (and reporting a new male sexual partner in the past 12 months) who received a chlamydia test in the past 12 months	43% ¹²
12. Screen for high blood cholesterol among men aged 35 to 65 years and women aged 45 to 65 years	
Men aged 35 to 65 years and women aged 45 to 65 years who received a cholesterol test in the past 5 years	80-84% ⁹
13. Screen for problem drinking among adults and provide brief counseling	
Adults aged 18-64 years at risk for alcohol abuse who reported that their physician had discussed alcohol with them in the past 3 years	27-34% ³
Adults aged 18-64 years who reported that their physician had discussed alcohol with them in the past 3 years	18-21% ⁷
Adult members of medical groups/IPAs, aged 18-70 years, who reported that their doctor or other health professional had discussed alcohol/substance abuse with them in the past 2 years	8-10% ⁸
14. Vaccinate adults aged 65 years and older against pneumococcal disease	
Medicare members who received a pneumonia shot ever	68% ¹¹
Adults aged 65 years and older who received a pneumonia shot ever	56-62% ³

*Services in **bold type** are those for which the percentage of eligible Californians receiving them is estimated to be below 50 percent.

1California HEDIS 2000 data (for year 1999); as reported by CCHRI

2California HEDIS 2001 data (for year 2000); as reported by CCHRI

3California BRFS 1999; based on analysis conducted by the Center for Health and Public Policy Studies, UC Berkeley in September-October 2001. Ranges reflect independent rates for HMOs and PPOs.

4Kaiser/HRET/UC Berkeley California Employer Health Benefits Survey, 1999; as reported in Schauffler HH and Brown ER, *The State of Health Insurance in California, 1999*.

5VSP Administrative Claims Data for 2000; unpublished analysis conducted September-October 2001

6Not Available/Insufficient Data

7California BRFS 1999; as reported in Schauffler HH and Brown ER, *The State of Health Insurance in California, 1999*. Ranges reflect independent rates for HMOs and PPOs.

8PBGH Physician Value Check Survey, 1998. Range reflects independent rates for Northern and Southern California.

9California BRFS 1999; as reported in Schauffler, H and McMenamin, S. Assessing PPO Performance on Prevention and Population Health. *Medical Care Research and Review*, 2001; 58(s1):113-137. Ranges reflect independent rates for HMOs and PPOs..

10California Newborn Screening Program, California Department of Health Services, Genetic Disease Branch; unpublished estimate

11Medicare Managed Care Consumer Assessment of Health Plans Study 2000 survey; results obtained from CMRI

12California Women's Health Survey 2000; unpublished preliminary data from California Department of Health Services, Sexually Transmitted Disease Control Branch

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SECTION II: THE FIVE C’S – KEY COMPONENTS OF A STRATEGY TO INCREASE DELIVERY RATES OF CLINICAL PREVENTIVE SERVICES

The following chapters of the *California Prevention Report* are the result of extensive dialogue with state health agency representatives, public purchasers of care, medical directors of California health plans, and public and private directors of medical quality assurance. The chapters reflect the five clinical preventive measures with California delivery rates below 50 percent (based on a review of existing California state-level data sets). The chapters also provide suggested recommendations for improving the delivery of effective, high-yield clinical preventive services through five strategies – the Five C’s: coverage, consumer’s informed choices, counting (or measuring progress), comprehensive prevention approaches, and credible counseling models.

Coverage – paying for services, e.g., a smoking cessation benefit

Consumer Choice – facilitating informed choices through consumer education, mailers

Counting – using data, e.g., reporting rates of service delivery; report cards

Comprehensive Approaches – creating prevention opportunities, e.g., standing orders for preventive services

Credible Models – translating research, e.g., identifying counseling & behavioral change models that work

These five strategies are highlighted in this *Report* as being illustrative of the processes needed to improve delivery rates of clinical preventive services. They involve: extending coverage to include effective clinical preventive services; increasing consumer awareness and education to foster informed consumer choices; examining existing databases for additional information on utilization and access among high-risk and targeted population groups; increasing coordination with other providers to assure access and continuity of services; and establishing professional consensus about the efficacy and effectiveness of counseling in clinical practice to help patients improve their own health.

The following discussion identifies a single issue that would improve delivery of a specific clinical preventive measure. In reality, however, all five strategies will be needed to some extent in order to improve delivery rates for each preventive service.

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Table 5: High-Yield Preventive Services with Low Delivery Rates in California's Managed Care Population, 1998-2000

Recommended Services, and Specific Measures Reported	Delivery Rates
A. Assess adults for tobacco use and provide tobacco cessation counseling	
Smokers and recent quitters aged 18 years and older who had seen a health practitioner in the year and who received advice to quit smoking during the year	55% ¹
Smokers aged 18-64 years who reported that their physician had discussed smoking with them in the past 3 years	65% ²
Covered workers aged 18-64 years in employer-sponsored HMOs with behavioral smoking cessation program as a covered benefit	30% ³
B. Screen for vision impairment among adults aged 65 and over	
VSP Medicare managed care plan members aged 65 years and older who received a well vision exam during the past year	36% ⁴
C. Screen for colorectal cancer (FOBT and/or sigmoidoscopy) among all persons aged 50 years and older	
Adults aged 50 years and older who received FOBT during the past year and/or sigmoidoscopy/colonoscopy in the past 5 years	39-45% ⁵
Adult members of medical groups/IPAs, aged 50 years and older, who received FOBT during the past year and/or sigmoidoscopy/colonoscopy in the past 5 years	65% ⁶
D. Screen for chlamydia among women aged 15 to 24 years	
Sexually active women aged 16-20 who received at least one test for chlamydia during the year	19% ¹
Sexually active women aged 21-26 who received at least one test for chlamydia during the year	16% ¹
Women aged 18-19 years old who received a chlamydia test in the past 12 months	53% ⁷
Women aged 20-24 years old (and reporting a new male sexual partner in the past 12 months) who received a chlamydia test in the past 12 months	43% ⁷
E. Screen for problem drinking among adults and provide brief counseling	
Adults aged 18-64 years at risk for alcohol abuse who reported that their physician had discussed alcohol with them in the past 3 years	27-34% ²
Adults aged 18-64 years who reported that their physician had discussed alcohol with them in the past 3 years	18-21% ⁸
Adult members of medical groups/IPAs, aged 18-70 years who reported that their doctor or other health professional had discussed alcohol/substance abuse with them in the past 2 years	8-10% ⁶

¹California HEDIS 2001 data (for year 2000); as reported by CCHRI

²California BRFS 1999; based on analysis conducted by Health Insurance Policy Program, UC Berkeley in September-October 2001. Ranges reflect independent rates for HMOs and PPOs.

³Kaiser/HRET/UC Berkeley California Employer Health Benefits Survey, 1999; as reported in Schauffler HH and Brown ER, *The State of Health Insurance in California, 1999*.

⁴VSP Administrative Claims Data for 2000; unpublished analysis conducted September-October 2001

⁵California BRFS 1999; as reported in Schauffler, H and McMenamin, S. Assessing PPO Performance on Prevention and Population Health. *Medical Care Research and Review*, 2001; 58(s1):113-137. Ranges reflect independent rates for HMOs and PPOs.

⁶PBGH Physician Value Check Survey, 1998. Range reflects independent rates for Northern and Southern California.

⁷California Women's Health Survey 2000; unpublished preliminary data from California Department of Health Services, Sexually Transmitted Disease Control Branch

⁸California BRFS 1999; as reported in Schauffler HH and Brown ER, *The State of Health Insurance in California, 1999*. Ranges reflect independent rates for HMOs and PPOs.

The Five C's

Part 1

Coverage – Paying for services, e.g., a smoking cessation benefit

Consumer Choice

Counting

Comprehensive Approaches

Credible Models

Coverage for services is an important aspect of being able to access healthcare services. Access to quality healthcare is important to eliminate health disparities and improve the health status of all Californians. Across all preventive services, having health insurance and a primary care provider are strong predictors that a person will receive appropriate preventive care. Improving access to appropriate clinical preventive services, including access to appropriate tobacco cessation services for adults who smoke, requires addressing insurance coverage barriers. Such barriers can include a lack of coverage for effective, recommended services or inadequate reimbursement for services. Similarly, patient acceptance or utilization of preventive measures may be low simply because they may be unaware of their benefits. System and policy interventions can increase the delivery of quality healthcare by offering preventive services among standard covered benefits.

Coverage & Tobacco Cessation

There is ample evidence that pharmacotherapy and tobacco cessation counseling by clinicians is effective, yet coverage of replacement therapies and counseling among California managed care plans is not a uniform benefit. Sixty-five percent of managed care organizations in California partially or fully cover some form of cessation treatment; about half cover behavioral smoking cessation programs.

**Table 6: Tobacco Assessment and Counseling
Delivery Rates in California's Managed Care Population, 1999-2000**

USPSTF: Recommended Services, and Specific Measures Reported			Delivery Rates
Assess adults for tobacco use and provide tobacco cessation counseling			
		Smokers and recent quitters aged 18 years and older who had seen a health practitioner in the year and who received advice to quit smoking during the year	55% ¹
		Smokers aged 18-64 years who reported that their physician had discussed smoking with them in the past 3 years	65% ²
		Covered workers aged 18-64 years in employer-sponsored HMOs with behavioral smoking cessation program as a covered benefit	30% ³

¹California HEDIS® 2001 data (for year 2000); as reported by CCHRI

²California BRFS 1999; based on analysis conducted by Health Insurance Policy Program, UC Berkeley in September-October 2001

³Kaiser/HRET/UC Berkeley California Employer Health Benefits Survey, 1999; as reported in Schauffler HH and Brown ER, *The State of Health Insurance in California*, 1999.

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U.S. Preventive Services Task Force (USPSTF) Recommendation and California Findings

Delivery rates for advice to quit and coverage among California's managed care population are shown in Table 6 (preceding page). The USPSTF states "tobacco cessation counseling on a regular basis is recommended for all persons who use tobacco products... Anti-tobacco messages are recommended for inclusion in health promotion counseling of children, adolescents, and young adults."¹⁷ California data indicate that, among adult smokers and recent quitters who had seen a healthcare provider in the last year, 55 percent received advice to quit. Sixty-five percent of adult smokers reported that their physician had discussed smoking with them in the past three years. With regard to discussion of smoking, statistically significant differences were found in the delivery rates between non-Hispanic White (68 percent) and Hispanic (44 percent) smokers.¹⁸ However, only 30 percent of workers in employer-sponsored health plans had access to behavioral smoking cessation programs as a covered benefit.^{19,20,21}

It should also be noted here that, in light of the large contribution to excess mortality by tobacco use, the Task Force on Community Preventive Services conducted a systematic review of the evidence of effectiveness of population-based interventions addressing tobacco prevention and control – including approaches to increase cessation. The Task Force strongly recommended several approaches that were specific to the healthcare system: (1) provider reminder systems coupled with provider education and (2) patient telephone support lines when coupled with other interventions. It also recommended use of provider reminder systems alone and reducing patients' out-of-pocket costs for effective tobacco use and dependence treatments.²²

National Benchmarks

The *Healthy People 2010* disease prevention and health promotion objectives for the nation describe achievable benchmarks, based on existing technology and current service levels. The national objective is to raise coverage for evidence-based treatment for nicotine dependency by managed care organizations to 100 percent by 2010.²³ Data from a national survey indicate that about 75 percent of health plans partially or fully cover at least one smoking cessation intervention.²⁴ In addition, the national 2010 objective regarding the prevalence of cigarette smoking among adults aged 18 and older is 12 percent of the population.²⁵ Despite several decades of declining rates of smoking, about 16 percent of adult Californians – 17.5 percent of California adult men and 13.6 percent of adult California women – continue to smoke.²⁶

Additional benchmarks and recommendations from health organizations and professional groups are located in Appendix A-1.

Why Coverage Matters

There is some evidence that smoking cessation benefits are not covered to the same extent that other clinical preventive services are covered. In 1999, a statewide survey

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of 431 California employers who sponsored health maintenance organization coverage for an estimated 5.9 million California adults was conducted. This survey of preventive services found that, while 98 percent of workers were covered for adult periodic exams, well baby care, and prenatal care, respectively, and 95 percent were covered for mammography, only 36 percent were covered for nicotine replacement and 30 percent were covered for behavioral counseling.²⁷ Among managed health care enrollees with employer-sponsored coverage in 1999, 29 percent of workers in small firms (3-50 employees) and 46 percent in large firms (1000 or more employees) had *any* coverage for smoking cessation treatments.²⁸

Turning to what is being covered, a recent study published in 1999 provides additional information on coverage of smoking cessation treatments (pharmacological and behavioral) among employer- and publicly sponsored managed care plans in California. These data indicate that Medicaid in California (Medi-Cal), which covers some 5 million Californians, provided coverage for all 5 pharmacological treatments, but does not cover counseling services. Among commercial plans, overall, there were fewer pharmacological benefits being covered when compared to those covered by Medi-Cal, but more counseling was offered. A little more than half of the commercial plans (54 percent) covered Zyban and 38 percent covered Wellbutrin. Only 23 percent of plans covered the nicotine patch, nasal sprays, and inhalers, respectively. Two plans did not provide any pharmacological coverage for tobacco cessation. Approximately half offered individual counseling on quitting or other types of behavioral counseling and assistance, and 46 percent offered proactive telephone assistance. Only 38 percent offered multiple (at least four) individual counseling sessions and 23 percent offered multiple behavioral or support sessions.²⁹

Overall, coverage is important in assuring access to preventive care for those who smoke or are at risk of smoking, and for reducing maternal exposure. Even so, it should be noted that decisions to smoke or to seek help in quitting are influenced by many factors, most of which are not related to plan coverage. In examining the nexus between coverage and utilization of the benefit, it is important for healthcare providers to intervene when appropriate and that such efforts to reduce tobacco use be comprehensive, evidence-based, and reinforced by community norms and environmental policies.

What Works

Reducing Tobacco Use: A Report of the Surgeon General, released in 2000, is the first to offer a review of the various methods used to reduce and prevent tobacco use. The report invites clinicians to “ask, advise, assess, assist, and arrange”, meaning the healthcare system should: identify smokers by asking; advise smokers to quit and assess their interest in doing so; provide brief counseling to smokers interested in quitting; and for smokers who want them, arrange for pharmacotherapy and/or behavioral interventions.³⁰

California-specific data suggests low delivery of these recommendations among health plans and clinicians. In 1999, 60 percent of smokers enrolled in California health plans

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reported they had been advised by a clinician to quit smoking.³¹ However, only 12 percent of smokers say a quit date had been suggested by their doctor during the previous 12 months, eight percent had been given a prescription to aid quitting by their doctor, and ten percent said their doctor had suggested other assistance in quitting.³²

Conclusion & Recommendation to DMHC

Although much of our knowledge about helping smokers to quit remains incomplete, there is more than enough evidence to initiate policies to broaden uniform coverage for effective tobacco cessation interventions. According to the U.S. Surgeon General, smoking cessation interventions are more cost effective than other clinical preventive measures, including screening for cervical, breast, and colon cancers, and treatment of mild high blood pressure and elevated blood cholesterol levels. Current California law requires that health plans offer coverage for smoking cessation services. Efforts to require uniform and expanded coverage would require legislation and may not be immediately actionable by regulating bodies.

The Director of the Department of Managed Health Care can take action by working with healthcare purchasers and health plans to implement policies that reinforce the view that tobacco dependence is a chronic condition. The Director can also promote, as a covered benefit, tobacco cessation counseling and pharmacotherapy interventions identified as effective, as well as adequate reimbursement for the provision of tobacco dependence treatment. Special attention should be paid to coverage and delivery of cessation services to pregnant women consistent with the practice guidelines issued by the Surgeon General in June 2000.

California Managed Care Data & Measures: Technical Notes

Delivery rates of assessment of tobacco use and provision of counseling in California's managed care organizations are derived from several surveys, each of which asked the relevant questions somewhat differently. All surveys addressed smoking specifically, rather than tobacco use. Additionally, the wording of most questions does not allow for assessment of the intensity or comprehensiveness of the assessment or counseling, i.e., whether it be simple inquiry of smoking status, advice to quit, or provision of more in-depth counseling. It should also be noted that all three surveys are based on self-reported data, and are subject to any limitations on patient understanding and recall that may exist, although research suggests that for measurement of health behavior counseling, including tobacco cessation counseling, patient self-report is reliable.³³ It should also be noted that these data do not allow for determination of whether the tobacco advice/discussion captured through these surveys represents true preventive care or rather disease management/symptom treatment.

The HEDIS^â rate represents the percentage of California smokers enrolled in a plan submitting HEDIS^â data who had seen a health provider in the previous year and who reported that they had received advice to quit smoking in the previous year. Response

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rates to the HEDIS[®] member satisfaction survey used to collect the advice-to-quit data were too low to allow for calculation of estimates for individual California plans, so only the statewide average was provided by CCHRI. As HEDIS[®] reporting is voluntary for HMOs and publicly reporting plans tend to score higher than non-publicly reporting plans, it is possible that the true statewide HMO average is slightly lower. The question used to estimate smoking assessment and counseling from the California BRFSS asked respondents whether their physician or other health professional had discussed, in the last three years, any of a list of health education topics with them, and smoking was read as one of the topics. Comparison of CA BRFSS data for current smokers and non-smokers suggests that a portion of respondents may interpret provider inquiry of smoking status as a discussion of this health education topic, since non-smokers also report some level of smoking discussion. In the PBGH survey of physician groups, patients with visits in the past twelve months reported whether or not their personal doctor or nurse had talked with them about smoking in the past 12 months. Data were only available in aggregate, not by smoking status.

Additional information on these data sources and tobacco cessation service delivery rates in California are presented in Appendix C: Data Sources and Additional Tables.

DO NOT CIRCULATE**The Five C's****Part 2**

<i>Coverage</i>
<i>Consumer Choice - Facilitating informed choices through consumer education, mailers</i>
<i>Counting</i>
<i>Comprehensive Approaches</i>
<i>Credible Models</i>

In today's marketplace environment, health consumers can be powerful change agents. There is little question that even under optimal conditions our systems of care would be less effective than they could be if consumers are not prepared to take action. Optimal conditions mean that researchers and healthcare providers agree on what constitutes quality preventive care. It means that a team of providers is trained and organized to deliver that care. It also means that preventive services are available and accessible to those who need them. But, even so, consumers need to know how to access preventive care, why it is important to them, and when and what steps they can take to improve their own health.

Consumer Awareness and Screening

Reduction in deaths due to colorectal cancer can be achieved through screening to detect and remove precancerous polyps. The efficacy of various screening tools has been demonstrated through randomized controlled trials and case-controlled studies. In California, managed health care plans are required to provide coverage for all generally medically accepted cancer screening tests, including colorectal screening tests. Yet utilization of this benefit remains low, suggesting the need for concerted consumer educational efforts.

**Table 7: Colorectal Cancer Screening Delivery Rates
in California's Managed Care Population, 1998-1999**

USPSTF: Recommended Services, and Specific Measures Reported		Delivery Rates
Screen for colorectal cancer (FOBT and/or Sigmoidoscopy) among all persons aged 50 years and older		
	Adults aged 50 years and older who received FOBT during the past year and/or sigmoidoscopy/colonoscopy in the past 5 years	39-45% ¹
	Adult members of medical groups/IPAs, aged 50 years and older, who received FOBT during the past year and/or sigmoidoscopy/colonoscopy in the past 5 years	65% ²
¹ California BRFS 1999; as reported in Schauffler, H and McMenamin, S. Assessing PPO Performance on Prevention and Population Health. <i>Medical Care Research and Review</i> , 2001; 58(s1):113-137. Ranges reflect independent rates for HMOs and PPOs. ² PBGH Physician Value Check Survey, 1998. Range reflects independent rates for Northern and Southern California.		

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U.S. Preventive Services Task Force (USPSTF) Recommendation and California Findings

The USPSTF states, “Screening for colorectal cancer is recommended for all persons aged 50 and older with annual fecal occult blood testing (FOBT), or sigmoidoscopy (period unspecified) or both.”³⁴ Examination of existing California managed care data, displayed in Table 7, indicates only 39 percent of older adults in preferred provider organizations (PPOs) and 45 percent of older adults enrolled in health maintenance organizations (HMOs) received a FOBT during the past year and/or an endoscopic test (either a sigmoidoscopy or colonoscopy) in the past five years.³⁵ The proportion of those who received either is unknown but data reported by the Centers for Disease Control and Prevention for all California adults indicates that 26 percent have ever used a home blood stool kit and 35.1 percent have ever had a sigmoidoscopy or colonoscopy exam.³⁶ The California managed care data for older adults indicate a statistically significant difference in the delivery rate of colorectal screening for non-Hispanic Whites, 46 percent, compared with all other race/ethnic groups, who had a combined screening rate of 30 percent.³⁷ Nationally, widespread screening for colorectal cancer could save up to 30,000 lives a year if all cases were found at an early stage.

National Benchmarks

With regard to colorectal screening, the *Healthy People 2010* objectives call for a 34 percent improvement in the colorectal cancer death rate. Nationally, 21.2 colorectal cancer deaths per 100,000 population occur, but with early detection and removal of precancerous colorectal polyps, this rate could be reduced by 34 percent to 13.9 deaths/100,000 population by 2010.³⁸ At 13.4 deaths/100,000 population, the overall death rate from invasive colorectal cancer in California is below the national target. However, there are marked differences among population subgroups. The death rate from colorectal cancer is above the target for California men (16.2 deaths/100,000 population), and is particularly high for African American men (24.6 deaths/100,000 population) and African American women (18.4 deaths/100,000 population) in California.³⁹

Additional benchmarks and recommendations from health organizations and professional groups are located in Appendix A-2.

Why Informed Consumers Make A Difference

Precursor lesions (i.e., polyps or non-cancerous growths) almost always precede the development of colorectal cancer by several years; removing polyps may reduce the risk of cancer.

An important consideration in improving the delivery of colorectal screening rates in California is the ability of clinicians to comply with established guidelines, as well as the desire of patients to comply with testing recommendations. Clinical trials have reported compliance rates of 50 to 80 percent for FOBT among volunteers.⁴⁰ Compliance rates as low as 15 to 30 percent have been reported from community screening

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programs^{41,42,43} and rates as low as six to 12 percent for sigmoidoscopy.^{44,45} A survey of patients over the age of 50 found that only 13 percent wanted to receive a sigmoidoscopy after being advised to do so, with patients citing cost, discomfort and fear as barriers.⁴⁶ Physicians are often reluctant to perform invasive colorectal screening tests on average-risk, asymptomatic patients, due to time and cost considerations, as well as limitations in their training and ability to perform the screening examinations.⁴⁷

This information suggests that all average-risk patients should receive frank education about the benefits and risks of colorectal cancer screening tests from their managed health care providers. Since screening rates, by whatever method or combination of methods, are low across managed health care plans in California, at the provider group level, each plan should describe a screening strategy based on available resources and look for systematic ways to promote appropriate delivery of colorectal screening to older adults.

What Works

Several screening tests are currently available for the early detection of colorectal cancer and non-cancerous growths: fecal occult blood testing (FOBT), flexible sigmoidoscopy, colonoscopy, and double contrast barium enema. Digital rectal examination has also been recommended. FOBT and colonoscopy represent the extremes of a spectrum of potential screening strategies. FOBT is characterized by simplicity and low cost. It can be utilized with relative ease and few side effects or risks. Colonoscopy, on the other hand, is characterized by efficacy and thoroughness, but it is an invasive procedure with more risks. In clinical practice, FOBT and sigmoidoscopy are widely used to screen for colorectal cancer and barium enema and colonoscopy are used as diagnostic tests.⁴⁸

Several studies have shown that colonoscopy, flexible sigmoidoscopy, and FOBT are each cost-effective screening tools.^{49,50,51,52,53,54,55} It is unclear which screening strategy makes the most sense in terms of costs and associated benefits. Although both FOBT and flexible sigmoidoscopy represent less expensive screening programs than does colonoscopy, this cost advantage is offset by the costs of medical care for cancers missed by these two screening methods.⁵⁶ Several recent studies have suggested that colonoscopy every ten years beginning at age 50 is a more effective and more cost-effective way to screen for colorectal cancer than FOBT every year or sigmoidoscopy every five years due to low patient compliance.⁵⁷ Another recent study published in the *New England Journal of Medicine* suggests that colonoscopic screening is significantly more sensitive in detecting cancerous polyps and advanced neoplasms in asymptomatic adults.⁵⁸ The constantly evolving science and guidelines can lead to confusion and consequently to inaction because of the uncertainty of benefits of different screening tests.

Conclusions & Recommendation to DMHC

Despite the call for specific screening tests and/or periodic sigmoidoscopy for all persons aged 50 or older, by whatever method or combination of screening

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techniques currently recommended, adherence is low – 50 percent or less. Screening rates among patients may be low due to poor patient compliance, disputes about the quality of the evidence supporting screening tests, the costs and risk associated with some tests, and the availability of clinicians trained in performing some of the screening. The concept of “shared decision-making” with patients and physicians acting together acknowledges the uncertainties in science and encourages full discussion of the risks and benefits of screening tests.

Given these barriers, the Director of the Department of Managed Health Care should adopt a multi-pronged educational strategy to: (1) convene a group (including consumers, health plan medical directors, as well as healthcare purchasers) to gain consensus on an appropriate colorectal screening strategy (or strategies) and ways to promote its/their delivery to California managed health care enrollees age 50 and older; (2) provide consumer education to enrolled Californians age 50 and older about endoscopic procedures and other tests as a covered benefit to screen for colorectal cancer; (3) involve patients directly in decisions about screening by providing information about the benefits and risks of screening tests, taking into account that informed choice is based upon preference and availability of qualified providers of sigmoidoscopy or colonoscopy.

California Managed Care Data & Measures: Technical Notes

Delivery rates for colorectal cancer screening within managed care in California are derived from two surveys, the California Behavioral Risk Factor Survey (BRFS) and the 1998 Physician Value Check Survey by the Pacific Business Group on Health. Although both surveys asked about receipt of blood stool testing and colonoscopy or sigmoidoscopy within the commonly recommended time intervals, the PBGH survey found rates of adherence to screening guidelines to be much higher than those reported in the BRFS. The BRFS is a telephone interview survey, while the PBGH survey was conducted by mail. However, both surveys are based upon patient self-report, and are thus subject to similar limitations on patient recall and understanding. Results of an Ohio study, which compared patient self-report to direct observation and medical records for a variety of preventive services, suggest that patients often fail to report fecal occult blood testing (FOBT); the sensitivity of patient self-report for sigmoidoscopy or colonoscopy was not addressed.⁵⁹ However, it should also be noted that the data presented in this report do not allow for determination of whether the colorectal cancer screening captured through these surveys represents true preventive care or rather disease management/symptom treatment. Another recent Ohio study found that over a third (35%) of the sigmoidoscopies performed were delivered in response to patient symptoms.⁶⁰

The BRFS rate represents an estimate of the percentage of California adults aged 50 years and older who had received an FOBT within the previous year and/or a sigmoidoscopy or colonoscopy within the past five years. This protocol differs somewhat from the USPSTF recommendation, which calls for annual FOBT and/or sigmoidoscopy

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in an unspecified time period. However, this protocol is the same as that used by the CDC in assessing the proportion of the US population that has been screened within the recommended period. To assess FOBT utilization, respondents were asked whether they had ever had a blood stool test using a special kit at home to determine whether the stool contains blood. If so, they were asked when, and options such as “within the past year” were read if necessary. Respondents were also asked whether or not they had ever had a sigmoidoscopy or a colonoscopy. If so, they were asked when, and options including “within the past 5 years” were read if necessary. Based on these data, the overall percentage of respondents receiving screening in accordance with the above-mentioned criteria was calculated. Results were calculated separately for respondents reporting HMO and PPO health plan membership, although no statistically significant differences in screening rates were observed between the two models.

The screening rates obtained from the PBGH 1998 Physician Value Check Survey were much higher, with 65% of respondents in Northern California physician groups and 65% of those in Southern California physician groups reporting that they had received a blood stool test within the past year and a sigmoidoscopy or colonoscopy in the past five years. Respondents were asked two separate questions, one regarding receipt of sigmoidoscopy or colonoscopy in the past five years, and the other regarding the use of “testing cards given to you by your doctor to check for blood in your stool (bowel movement)”. Reported rates of receipt of blood stool testing in the past year were 41% and 43% for Northern and Southern California physician groups, respectively. Reported rates for receipt of sigmoidoscopy/colonoscopy within the past five years were 48% and 45% for Northern and Southern California physician groups, respectively.

Additional information on these data sources is presented in the Appendix C: Data Sources & Tables.

The Five C's

Part 3

Coverage

Consumer Choice

Counting – Using data, e.g., reporting rates of service delivery; report cards

Comprehensive Approaches

Credible Models

The fundamental importance of data – its collection and reporting – has emerged as one of the key issues at the forefront of managed health care delivery systems. In some instances, innovations have been driven by purchasers of care seeking quality, cost-effective care for the dollars spent. In other cases, managed care organizations have depended upon data to balance costs, access and appropriate outcomes in healthcare. At each level of the health continuum, there has been a heightened need for data on health status, and on the processes and outcomes of care. Also, there has been increased emphasis on the need for comparable data – e.g., data that has been standardized to allow purchasers and consumers to make realistic comparisons between healthcare systems.

Descriptive Data, Performance Measures and Visual Screening

Data on health risk behaviors and clinical preventive services are often not captured by existing data sets – or, if they are captured, they are not analyzed – despite the fact that they are needed to appropriately target preventive interventions. For example, few data exist from published national or state sources concerning the delivery of vision screening services to older adults in California managed care plans. Given the difficulty and costs associated with developing effective information systems, examination of existing administrative data, surveys of patients/consumers, and expansions of public efforts, such as the California Behavioral Risk Factor Survey, may address a portion of the need for better prevention-oriented data.

**Table 8: Screening for Vision Impairment in Older Adults -
Delivery Rates in California's Managed Care Population, 2000**

USPSTF: Recommended Services, and Specific Measures Reported			Delivery Rates
Screen for vision impairment in adults aged 65 and older (Snellen acuity testing)			
	Medicare managed care plan members aged 65 and older who received a well vision examination during the past year (Vision Service Plan)		36% ¹

¹VSP Administrative Claims Data for 2000; unpublished VSP analysis, September/October, 2001

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U.S. Preventive Services Task Force (USPSTF) Recommendation and California Findings

The U.S. Preventive Services Task Force states, “Routine vision screening with Snellen acuity testing is recommended for elderly persons. The optimal frequency for screening is not known and is left to clinical discretion.”⁶³ Data from Vision Service Plan of California (Table 8) for approximately 500,000 adults aged 65 and over enrolled in Medicare managed care plans indicates that 36 percent of members received a well vision examination, including a Snellen acuity test, during the past year.⁶⁴

National Benchmarks

The *Healthy People 2010* objectives include one developmental objective (i.e., there were few baseline data with which to measure progress): to reduce uncorrected visual impairment due to refractive errors.⁶⁵ This objective is general in that it does not specify a screening measure, target population, or goal (probably because few data are available to establish these parameters).

Additional benchmarks and recommendations from health organizations and professional groups are located in Appendix A-3.

Why Vision Screening Matters

Few data are readily available describing clinical practices for vision screening of older adults. Older persons are disproportionately affected by sensory impairments. Although nationally those age 65 and older make up 12.8 percent of the U.S. population, they account for 30 percent of all visually impaired individuals. Nearly 37 percent of all visits to physicians’ offices for eye care are made by persons 65 and older.⁶⁶ As with other potentially valuable clinical preventive services, relatively little is known about the extent of the problem among California’s older adult populations — including coverage and access to appropriate screening by primary care clinicians or specialists, referrals for vision screening, and education concerning warning signs. What is clear is that early detection and treatment can prevent or at least postpone some serious impairments and there is room for growth in the use of aids and devices to lessen the effects of impairments.

Being able to deliver and improve clinical preventive services, especially visual acuity screening, to older persons is important for two reasons: (1) California’s population longevity is increasing – persons living in California who reach age 65 years have a high probability of living to age 80 and beyond; and (2) visual disorders in older adults are associated with injuries due to falls and motor vehicle accidents, diminished work productivity, and poor quality of life. According to national statistics, many older adults may be unaware of changes in their vision and a significant proportion may be using incorrect prescriptive lenses.

Having to count, measure or describe a clinical practice can lead to that practice becoming standardized and supported within medical settings. In this respect, the

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Healthplan Employer Data and Information Set (HEDIS[®]), developed by the National Committee for Quality Assurance, has led the way in providing aggregate plan-specific performance measures of the process and outcomes of care. More importantly, these results are reported in a standardized format that allows comparisons to be made across health plans and time spans. Many health care observers believe HEDIS[®] measures, such as mammography and immunization, have received increased attention from health plans with consequent improvement in delivery rates.

What Works

Although, according to the second edition of the U.S. Preventive Services Task Force guidelines, the effect on functional outcomes of periodic screening with Snellen chart acuity in the elderly has not been directly assessed, there is evidence that routine screening leads to improvements in measured acuity.⁶⁷ With increasing age, there is a strong argument for early detection of uncorrected visual impairment to help prevent injury and improve independent living. Results from the Coffield study ranked vision screening among people aged 65 and older as a highly valuable service due to a high prevalence of uncorrected vision. That study found vision screening to be cost-effective (defined as the net cost of the service divided by the estimated quality-adjusted years of life saved) whether or not vision-related hip fractures were included in the analysis.⁶⁸

Conclusions & Recommendation to DMHC

Critical information about the delivery and utilization of many beneficial clinical preventive services are lacking but may be available through administrative data or other sources. With regard to the delivery of vision screening to older Californians, or other preventive services for which there are few data, the Director of the Department of Managed Health Care should: (1) identify potential sources of preventive health data – e.g., the Department of Health Services' Behavioral Risk Factor Surveillance System or Vision Service Plan of California – to determine the feasibility, cost, and utility of these data in describing delivery patterns among managed health care plans in California; (2) coordinate efforts with the Department of Motor Vehicles, which performs vision screening of older adults, to assess the possibility of strengthening processes for identifying at-risk persons and referring them to appropriate vision care providers; and (3) link reporting of these new data to the Report Card published annually by DMHC. This information should be useful in advocating for the development of prevention-oriented performance measures at national levels and serve as one strategy to promote delivery of such important care. A feasibility study may be necessary to examine the extent to which state agencies can share health-related data and the degree to which governmental agencies can make referrals to vision care providers.

California Managed Care Data & Measures: Technical Notes

Data on the delivery of vision screening services to older adult population were obtained from Vision Service Plan (VSP), a large provider of eye care wellness benefits. Administrative data formed the basis for the analysis, which was performed using paid

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claims and enrollment data for the year 2000 for more than half a million Medicare managed care members aged 65 years and older. The overall and individual plan screening rates were determined by dividing the total number of unique members within a health plan who had an exam in the year by the average monthly enrollment during the year. The use of member-months allows for the inclusion of both members who were in the plan for less than a full year and the exams such members received. Within the scope of this report it was not possible to determine rates for longer periods, as this would have required the use of membership data on continuous enrollment. Medical vision exams are excluded from the analysis, which focuses on well vision exams as an indicator of preventive screening.

Additional information on these data sources is presented in the Appendix C: Data Sources & Tables.

The Five C's

Part 4

<i>Coverage</i>
<i>Consumer Choice</i>
<i>Counting</i>
<i>Comprehensive Approaches – Creating prevention opportunities, e.g., standing orders for preventive services</i>
<i>Credible Models</i>

Sexually transmitted diseases (STDs), like chlamydia, are common, costly and preventable. Access to high-quality health care is essential for early detection, treatment, and behavioral change counseling for STDs. Often, many of the groups at highest risk of STDs are the same groups in which access to health services is most limited due to coverage exclusions, copayments or deductibles, but also due to missed opportunities within clinical settings to screen for STDs. Prevention opportunities arise from an understanding of STD transmission – e.g., the rate at which uninfected individuals have sex with infected partners (exposure); the probability that a susceptible exposed person will acquire an infection (transmission); and the time period during which an infected person remains infectious and able to spread the disease to others (duration). Effective STD prevention requires comprehensive approaches and coordinated population-level and individual-level interventions that can alter the natural course of these factors.

Coordinated & Comprehensive Screening Efforts

Due to the development of new sensitive, rapid, non-invasive diagnostic tests, chlamydia screening of specific populations in non-traditional, clinical settings appears to be a promising new control strategy.⁶⁹ However, the broader use of these tests will depend on: increased coordination among medical providers; collaboration with public health disease control experts; and access to well-equipped laboratory resources.

**Table 9: Screening for Chlamydia Among Women -
Delivery Rates in California's Managed Care Population, 1999-2000**

USPSTF: Recommended Services, and Specific Measures Reported			Delivery Rates
Screen for Chlamydia among women aged 15 to 24 years			
	Sexually active women aged 16-20 years who received at least one test for chlamydia during the year		19% ¹
	Sexually active women aged 21-26 years who received at least one test for chlamydia during the year		16% ¹
	Women aged 18-19 years who received a chlamydia test in the past 12 months		53% ²
	Women aged 20-24 years (and reporting a new male sexual partner in the past 12 months) who received a chlamydia test in the past 12 months		43% ²
¹ California HEDIS® 2001 data (for year 2000); as reported by CCHRI			
² California Women's Health Survey 2000, unpublished data from the California Department of Health Services, Sexually Transmitted Disease Control Branch			

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U.S. Preventive Services Task Force (USPSTF) Recommendation and California Findings

The USPSTF's *Guide to Clinical Preventive Services* recommends that clinicians routinely screen all sexually active women aged 25 and younger and other asymptomatic women who may otherwise be at risk – whether or not they are pregnant – for chlamydial infection.⁷⁰

Yet, both national and state data indicate women are not being screened. National surveys of major health plans found that between 2 percent and 40 percent of sexually active teenage girls aged 15 to 25 years had been screened.⁷¹ Delivery rates of screening for chlamydia from two California data sets are presented in Table 9 (preceding page) and indicate that delivery rates for screening for chlamydia among high-risk populations are low in managed care plans.

National Benchmarks

The *Healthy People 2010* objective for chlamydia screening is to increase the proportion of primary care providers who treat patients with sexually transmitted diseases and who manage cases according to recognized standards from 70 percent (baseline) to 90 percent by 2010. Developmental objectives were proposed to increase the proportion of sexually active females aged 25 years and under who are screened annually for chlamydia infections.⁷²

Additional benchmarks and recommendations from health organizations and professional groups are located in Appendix A-4.

Why Broader, Comprehensive Screening for Chlamydia Matters

Chlamydial infection is the most common communicable disease in California. It is responsible for a large proportion of the state's cases of pelvic inflammatory disease (an important cause of chronic pelvic pain, infertility and ectopic pregnancy). A majority (70 to 90 percent) of persons infected with chlamydia, especially women, are asymptomatic and most cases go undetected.⁷³ The incidence of chlamydia infections is widespread throughout California. Nearly 60 percent of California's 58 counties report at least 100 cases of chlamydia each year.⁷⁴ It is highly unlikely that chlamydial infections can be curbed without the active participation of managed care plans in screening high-risk individuals and detecting infectious individuals.

More than 58,700 cases of chlamydia were reported in California in 1997 – of that number 53,557 were in women (70 percent between the ages of 15 and 24). Due to under-reporting and undiagnosed infections, the Department of Health Services estimates that closer to 300,000 women and their partners are infected annually.⁷⁵ Nearly seven percent of adolescent girls screened in managed health care settings were infected with chlamydia, roughly equal to the prevalence of chlamydia among girls screened in family planning facilities.⁷⁶ Yet in 1997 (the most recent year for which

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there are data), fewer than 20 percent of sexually active young adults were being offered screening in managed care settings in California.⁷⁷

What Works

Simple, routine screening tests can identify the presence of chlamydial infections. Treatment with antibiotics is usually successful in preventing further transmission of the disease and in limiting complications. Screening and treatment of chlamydia affect both transmission and duration factors. For curable STDs, like chlamydia, screening and treatment can be cost-effective or even cost saving in altering the period during which infected persons can infect others. For STDs that are asymptomatic, again like chlamydia, screening and treatment benefit those who are likely to suffer from severe complications if the infections are not detected and treated early on. The development of new tests that can be performed on urine samples and self-administered vaginal swab specimens promises broader screening of males and females in both clinical and non-traditional settings. The availability of a single-dose treatment for chlamydia, as opposed to a seven-day regimen, has also increased the likelihood of compliance with recommended treatment. Additionally, California legislation (Senate Bill 646, Ortiz), enacted in 1999, authorizes physicians to prescribe, furnish or otherwise provide prescription antibiotic drugs to the partner or partners of a patient with a diagnosed sexually transmitted chlamydia infection without examination of the patient's partner or partners.⁷⁸

Conclusions & Recommendation to DMHC

Reduction in chlamydia infections requires that managed care providers be aware of the high prevalence of chlamydia and the need to screen asymptomatic patients in non-traditional clinical settings. It also requires that they counsel chlamydia patients to arrange for treatment of sexual partners, routinely obtain a sexual history, and counsel all sexually active patients about the risks of sexually transmitted diseases. The Director of the Department of Managed Health Care can facilitate this process by developing model clinical practice guidelines for broader, coordinated chlamydia screening and treatment for adoption by medical policy committees in managed care organizations and medical groups. Guidelines would include: (1) delivery of chlamydia screening services for at-risk patients in other potential points of clinical service (e.g., sports physicals, urgent care settings and emergency rooms where genital examinations are not routinely done); (2) use of non-invasive chlamydia screening tests for males and in settings where pelvic examinations are not routinely done for females; and (3) establishment of chlamydia screening as a standard of care in prenatal examinations.⁷⁹

California Managed Care Data & Measures: Technical Notes

Delivery rates of chlamydia testing come from two data sources that derive the data differently—one from plan administrative data, and the other from patient self-report. The observed rates differ substantially, likely due to differences in the methodologies employed. Comparability of the data is further limited by the use of different age

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categories. It should also be noted that these data do not allow for determination of whether the chlamydia testing captured through these surveys represents true preventive care or rather disease management/symptom treatment.

The HEDIS^â rate represents the percentage of sexually active California women age 16 through 26 years enrolled in a plan submitting HEDIS^â data who were continuously enrolled in the previous year (with a gap up to 45 days allowed) and who had received a chlamydia test in the previous year. Chlamydia screening is a recent HEDIS^â measure—the rates reported herein reflect only the second year of its use—and there is concern that systems are not in place to allow for accurate reporting of utilization. Many managed care organizations in California do not have in-house laboratories but rather refer members to outside labs. In the case of referral, lab test performance data may not be entered into the plan's administrative records, and thus would not be counted. Determination of "sexually active" is difficult, as this cannot always be determined from administrative or medical records. In addition, as HEDIS^â reporting is voluntary for HMOs and publicly reporting plans tend to score higher than non-publicly reporting plans, the true statewide HMO average may be slightly lower.

HEDIS^â data indicate that screening rates among target populations enrolled in managed health care plans remain low. These rates may be artificially low, due to the data requirements for reporting of screening rates; however, the low rates also reflect an overall need for consumer education and ways to address lack of awareness and training among health providers about chlamydia screening and treatment services.

Caution should be used when interpreting these rates since more enrollees were probably screened than reported due to the lack of access to laboratory data required by the HEDIS^â measure (i.e., without laboratory data, even when the test is ordered and provided, the measure is recorded as if no test was performed). Also, there is difficulty identifying sexually active women from medical record information.⁸⁰

The question used to estimate chlamydia testing from the California Women's Health Survey asked respondents whether they had been tested for chlamydia during the past twelve months. Respondents with at least one male sexual partner were also asked whether they had a new male sexual partner during the past twelve months. Data presented in this report are limited to those who also responded in the affirmative to a question asking whether they receive their health care through a health maintenance organization. These data are all based on patient self-report, and as such are subject to any limitations on patient understanding and recall that may exist.

Additional information on these data sources is presented in Appendix C: Data Sources & Tables.

The Five C's

Part 5

Coverage

Consumer Choice

Counting

Comprehensive Approaches

Credible Models – Translating research, e.g., identifying counseling and behavioral change models that work

Substantial gaps remain in the delivery of screening and counseling services related to health behaviors. Unhealthy diets, sedentary lifestyle, smoking and alcohol use account for a majority of preventable deaths in the United States. Some of the barriers within managed care settings in providing counseling include the lack of a standard benefit for counseling as a routine part of care, poor adoption of the standard benefit by plans and insurers, and inadequate specific performance measures. More germane however, is the view that counseling is a “conversation” between providers and patients vs. a specific, planned intervention. Therefore, some counseling services often are not seen by decision-makers as distinct services, but rather a discourse that takes place anyway, in the normal course of care.

Counseling About Problem Drinking

Several studies over the past few decades have demonstrated that clinicians are frequently unaware of problem drinking by their patients.⁸¹ The U.S. Preventive Services Task Force (USPSTF) identified brief counseling on problem drinking as an effective intervention. National data suggest that risk assessment and counseling interventions are delivered less frequently in clinical settings than other preventive screenings (e.g., screening mammography),⁸² due to clinicians’ beliefs about the efficacy of counseling interventions, concerns about time constraints, and their judgements about patient compliance.^{83,84}

Table 10: Screening/Counseling for Problem Drinking Among Adults - Delivery Rates in California’s Managed Care Population, 1998-2000

Recommended Services, and Specific Measures Reported	Delivery Rates
USPSTF: Screen for problem drinking among adults and provide brief counseling	
Adults aged 18-64 years at risk for alcohol abuse who reported that their physician had discussed alcohol with them in the past 3 years	27-34% ¹
Adults aged 18-64 years who reported that their physician had discussed alcohol with them in the past 3 years	18-21% ²
Adult members of medical groups/IPAs, aged 18-70 years who reported that their doctor or other health professional had discussed alcohol/substance abuse with them in the past 2 years	8-10% ³

¹California BRFS 1999; based on analysis conducted by Health Insurance Policy Program, UC Berkeley in September-October 2001. Range reflects independent rates for HMOs and PPOs.

²California BRFS 1999, as reported in Schauffler HH and Brown ER, *The State of Health Insurance in California, 1999*. Range reflects independent rates for HMOs and PPOs.

³PBGH Physician Value Check Survey, 1998. Range reflects independent rates for Northern and Southern California.

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U.S. Preventive Services Task Force (USPSTF) Recommendation and California Findings

Screening to detect problem drinking and hazardous drinking is recommended for all adult (and adolescent) patients by the USPSTF.⁸⁵ As indicated by the data in Table 10, screening adults for problem drinking and providing brief counseling are among the preventive services with the lowest delivery rates examined in this report. Table 10 presents data from two sources: the California Behavioral Risk Factor Surveillance annual survey of adults and a survey of California patients in medical groups. With regard to physician discussions about alcohol use, low rates were uniformly reported. Among adults at risk of alcohol use (defined as persons who consumed five or more drinks on a single occasion in the past month), up to one-third reported that their physician had discussed alcohol use with them during the past three years.⁸⁶ Among the general adult population only 18 percent reported such discussion during a three-year period,⁸⁷ while only 8 to 10 percent of patients in medical groups reported having discussed alcohol/substance abuse with their doctor during the past one year.⁸⁸

National Benchmarks

Several of the *Healthy People 2010* objectives set targets for reducing the number of alcohol-related injuries and deaths, including cirrhosis-related deaths among adults. Other population goals have been set for reducing overall annual alcohol consumption and binge drinking in adults (especially males) from 16.6 in the past month (the 1998 baseline) to 6.0 percent in 2010.⁸⁹ Three developmental objectives (i.e., formulated without baseline data) were also established. The first calls for reducing alcohol-related emergency department (ED) visits.⁹⁰ (Screening for alcohol problems in the ED provides an opportunity for early intervention and appropriate referral since alcohol-related visits are 1.6 times more likely than other ED visits to be injury related.⁹¹) The second calls for increasing the proportion of adults aged 18 and older with excessive alcohol consumption who are appropriately counseled.⁹² The third calls for reducing the treatment gap for alcohol problems, including addressing patient-level and system-level barriers, to improve access to appropriate primary, rehabilitative, and long-term care.⁹³

Additional benchmarks and recommendations from health organizations and professional groups are located in Appendix A-5.

Why Early Detection & Alcohol Use Counseling Matter

A substantial proportion of the population consumes alcohol – 44 percent of adults age 18 or older report having consumed 12 or more alcoholic drinks during the past year.⁹⁴ Although more than one-half million Americans are under treatment for alcoholism, awareness of the true magnitude of the problem is only now becoming fully understood. The prevalence of alcohol abuse may be as high as 24 percent for men and ten percent for women.^{95,96,97, 98} Eight to 20 percent of patients seen in primary care settings are problem drinkers.⁹⁹ Any level of drinking during pregnancy may cause injury to the baby (Fetal Alcohol Syndrome), but surveys indicate that 12-14 percent of pregnant women continue to consume alcohol during their pregnancies.¹⁰⁰ Excessive drinking has

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consequences for virtually every part of the body and even persons who drink relatively small amounts of alcoholic beverages may contribute to alcohol-related deaths and injuries. Alcohol problems also have an effect on school attainment, work experience, health status and family structure.

Physicians often do not recognize symptoms of alcohol dependence. In one study, problems were detected in less than half of patients. Even when physicians identify an alcohol problem, they are often reluctant to confront the patient with a diagnosis that might lead to treatment for addiction due to patient barriers (denial, stigma) and systems barriers (lack of coverage, treatment gaps).¹⁰¹

What Works

There is evidence that brief clinician counseling is effective in getting patients to stop smoking and reduce problem drinking.^{102,103} As an important first step in helping patients, screening should involve a careful history of alcohol use and/or the use of standardized brief screening questionnaires such as the CAGE¹⁰⁴ or AUDIT¹⁰⁵ to assess the likelihood of problem or hazardous drinking. Such responses should be confirmed by a discussion with the patient about patterns of use, problems related to drinking, and symptoms of alcohol dependence. All pregnant women should be screened for evidence of problem drinking or risk drinking (defined as two drinks per day or binge drinking).¹⁰⁶

Screening, when it does occur, creates opportunities for intervention. The results of over 40 clinical trials indicate that brief interventions are effective in reducing alcohol consumption. These interventions can include feedback from screening examinations, health advice to reduce consumption and risk, guidelines for sensible drinking, goal setting with the patient, and strategies to increase motivation.¹⁰⁷

In addition to the 20 percent of patients who consume alcohol in ways that lead to increased risk, about 35 percent drink within the guidelines for moderate use and five percent meet the criteria for alcohol dependence. Screening, brief interventions, and more intensive interventions based on differential assessment (a detailed evaluation) are elements of treatment of alcohol misuse.¹⁰⁸

Conclusions & Recommendation to DMHC

Integrating alcohol assessment and counseling as a routine part of practice within managed health care organizations is challenging due to patients who may resist advice and because of provider- and system-level barriers. Current California law provides that health plans offer coverage for alcohol-abuse services. Clinicians require tools, training and evidence tailored to their specific concerns. While a model counseling benefit would require legislative action, the Director of the Department of Managed Health Care can promote evidence-based approaches by: (1) making information available about the cost, efficacy, and implementation of successful alcohol counseling/behavioral change interventions within managed care organizations; (2) convening payers and stakeholders to review evidence regarding a model benefit for counseling as part

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of routine care; and (3) working with the Office of the Patient Advocate and others to identify effective ways to encourage consumer demand for behavior counseling as part of routine care, including pursuing alliances with consumer groups that engage patients in their own health and health care.

California Managed Care Data & Measures: Technical Notes

Delivery rates for the assessment of problem drinking and the provision of brief counseling in California's managed care organizations are derived from two surveys: the California Behavioral Risk Factor Survey (BRFS) and the Physician Value Check Survey by the Pacific Business Group on Health. The BRFS is a random telephone interview survey of California adults, while the PBGH survey was conducted by mail and included adult members of physician groups only. Both are surveys of patients, and both ask about discussions of alcohol with physicians, although in one survey the question was not limited strictly to alcohol but included substance abuse discussion as well. Additionally, the wording of most questions does not allow for assessment of the intensity or comprehensiveness of the assessment or counseling, i.e., whether it be simple inquiry into drinking habits, provision of advice to quit, or provision of more in-depth counseling. These data also do not allow for determination of whether the alcohol-related discussion captured through these surveys represents true preventive care or rather disease management/symptom treatment. It should also be noted that since both surveys are based on self-reported data they are subject to any limitations on patient understanding and recall that may exist, although research suggests that for measurement of health behavior counseling, including alcohol counseling, patient self-report is reliable.¹⁰⁹

The question used to estimate smoking assessment and counseling from the California BRFS asked respondents whether their physician or other health professional had discussed, in the last three years, any of a list of health education topics with them, and alcohol was read as one of the topics. CA BRFS data are presented separately for those at risk for alcohol abuse (defined as having consumed five or more drinks on at least one occasion in the past month) and for the overall CA BRFS population. Estimates were also determined separately for respondents reporting HMO and PPO health plan coverage, and confidence intervals are presented when available. In the PBGH survey of patients in physician groups, those aged 18-70 years were asked whether or not their doctor or other health professional had talked with them about alcohol/substance abuse in the past 2 years. Overall, 8% of those in Northern California physician groups and 10% of those in Southern California groups reported this to be the case. It should be noted that the wording of the question also allows for the capture of alcohol/substance abuse discussions outside the physician group context, provided it is dispensed by "other health professionals." Data were unavailable by reported level of alcohol consumption.

Additional information on these data sources is presented in Appendix C: Data Sources and Tables.

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SECTION III: THE PROMISE OF MANAGED CARE

Among states, California has the longest history of successful managed care development and penetration. Managed care, broadly stated, is a planned, comprehensive approach to the provision of health care that combines clinical services and administrative procedures within an integrated, coordinated system that is carefully constructed to provide timely access to primary care and other necessary services in a cost-effective manner. Historically, managed care has been aimed at giving people access to high-quality, cost-effective care through a delivery system that influences utilization of services, cost of services, and accountability for services. Managed care organizations can play a powerful role in prevention for at least two major reasons.

First, managed care organizations are a major source of healthcare for beneficiaries of employer-sponsored and publicly funded, pre-paid health care insurance.

- California has one of the highest rates of managed care penetration in the country, with 54 percent of its population of more than 34 million enrolled in managed care in 2000, as compared to 30 percent nationally.¹¹¹
- More than 17.7 million Californians were enrolled in one of the state's 35 HMOs in 2000; one in five of the nation's 79.5 million HMO enrollees receive their care in California.¹¹²
- Between March 2000 and March 2001, there has been a 3.9 percent increase (510,885 Californians) in enrollment in commercial managed care plans; a 6.7 percent increase (177,156 enrollees) in Medi-Cal managed care enrollment; and a 1.5 percent decrease in Medicare managed care (23,179 enrollees). (The latter represents a decrease of 3.6 percent after netting for the increase in Medicare eligibles.¹¹³)
- More than half of California's managed care enrollees subscribe through their employer – about 13.4 million workers – most of whom were enrolled through employers with 50 or more employees.¹¹⁴
- More than 4 million California enrollees subscribed through public programs, mainly through Medi-Cal, Medicare+Choice, and Healthy Families programs.¹¹⁵
- California counties are served by an array of health plans (35 full-service plans) with diverse service areas – 18 health plans serve 5 or fewer counties but six plans (Aetna, Blue Cross, Blue Shield, Health Net, Kaiser and Maxicare) serve all California counties.¹¹⁶

Among all of the state's managed health care enrollees, the vast majority were enrolled in Health Maintenance Organizations (73 percent), followed by Preferred Provider Organizations (20 percent), and Point of Service Plans (5 percent).¹¹⁷ HMO enrollment is concentrated among just a few California health plans; 78 percent of total enrollment is concentrated among five HMOs – Kaiser Foundation Health Plan, Pacificare, Health Net, CaliforniaCare (Blue Cross) and Blue Shield.¹¹⁸ In general, health plans in

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California are moving toward a combined provider arrangement – e.g., a mix of group IPA, and network provider affiliations. The proportion of plans with mixed models of care grew from 42 percent in 1998 to 78 percent one year later in 1999.¹¹⁹

Second, managed care organizations historically have included preventive services in their regular regimen of care, usually as part of their standard benefits. There is a long history of interest by larger staff or group model HMOs in preventive services, such as immunizations and screening for disease.¹²⁰ “First generation” managed care organizations focused on containing hospital costs. Today’s managed care organizations have broader responsibilities: develop and communicate practice guidelines for effective care; build networks of providers to improve care delivery; seek continuous quality improvement; promote access to preventive services and early detection; support patients and families in obtaining appropriate treatment; and coordinate care among complex networks of payers, providers, and patients to ensure communication and continuity of care.¹²¹

Clinical preventive services are a strong component of care offered by California HMOs. Coverage for Pap tests, childhood immunizations, well-baby check-ups, screening mammography, chlamydia screening, and HIV screening in best-selling group products is universal (100 percent). More than 90 percent of HMOs also routinely cover periodic health examinations, blood cholesterol screening, pneumococcal vaccinations, adult influenza vaccinations, and preventive counseling in the benefit packages of their best-selling products in the group market.¹²²

Managed care, as a relatively young industry, is constantly evolving to deliver better outcomes at lower costs. Its evolution is an opportunity to address patient and provider behaviors. In light of consumers’ demands for high-quality care that lets them take greater control of their own health and providers’ desires to provide that care, it is a critical time to consider ways to promote increased delivery of appropriate clinical preventive services technology, evidence-based medicine, and national standards that work in real-world clinical settings.

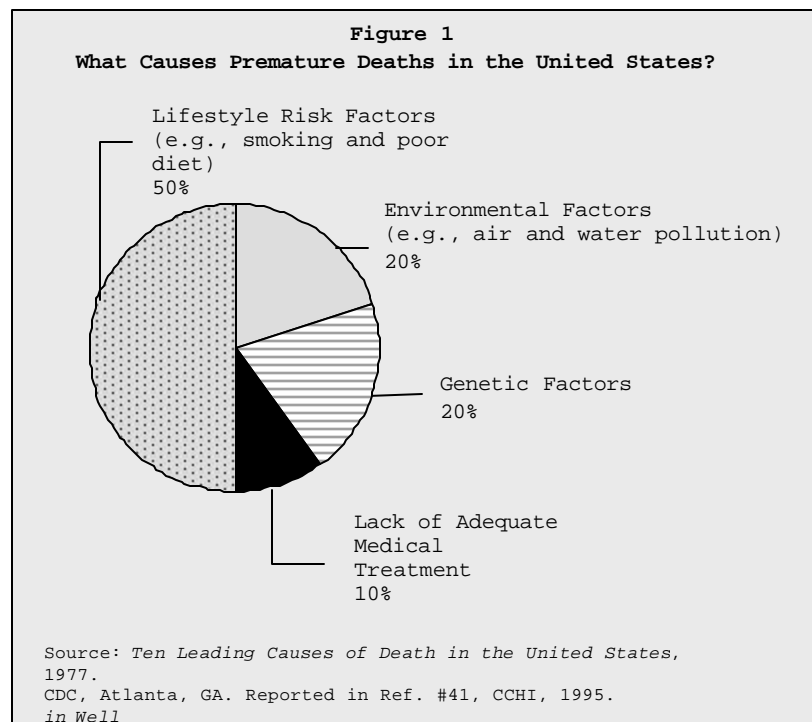
What is Prevention?

Prevention, simply stated, refers to planned activities to help people avoid illness, injury and premature death. It can include clinical services delivered by healthcare providers as well as community-based efforts and health and related social and economic policies. The growing interest in disease prevention is spurred partly by information that **half of all disease, injuries, and premature deaths in the United States are potentially preventable.**¹²³ As depicted in Figure 1 (next page)¹²⁴, what this information really means is that there are many prevention opportunities to protect and improve health that are currently available, but they are underutilized.

Since the turn of the century, the average life span for Americans has increased by 30 years – 25 of these added years have been attributed to investments in prevention.¹²⁵ This means that **prevention technologies exist that can lengthen life and improve its quality.** Some of these technologies have been used successfully for years:

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vaccines to protect children from polio, engineering improvements in motor vehicle safety, improvements in food processing. Many prevention interventions are cost-effective in that they may not yield dollar savings but improve health for a reasonable cost relative to other spending options. A few prevention technologies are cost saving, meaning that monetary savings result from the prevention program, service, or policy. Most childhood immunizations, smoking cessation services for pregnant women, pneumococcal and influenza vaccinations for older adults, and chlamydia screening for sexually active adolescent and young women fall into the category of being cost saving.



Finally, interest in prevention has been generated due to spiraling health care costs. Policy-makers now realize that **treating preventable diseases and disabilities is costly**. In point of fact, the toll from heart disease and cancers that result from tobacco use is high – and not only in terms of direct medical costs but also because of lost productivity, lowered quality of life and reduced independence. This holds true for many preventable and costly health conditions. What prevention does is recognize that a range of interventions is needed to address persistent but preventable health problems. For example, in the case of tobacco use – raising tobacco excise taxes, sponsoring public education campaigns and school-based educational programs, enacting local policies to reduce environmental tobacco smoke exposures and youth access to tobacco products, and promoting clinical interventions that make it easy for smokers to get counseling and access to pharmacotherapies – work comprehensively to lower population-wide risks for heart disease and cancer.

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Public Support for Preventive Services and Programs

The term “desired health outcomes” does not refer solely to narrowly defined medical outcomes of disease. It includes the health outcomes that patients seek and highlights the crucial link between how care is provided and its effects on health. Central to desired outcomes is the need to ensure that patients and their families are well informed about health care interventions and their expected outcomes. This means having an understanding of people’s abilities to function as well as possible in their daily lives and also underscores the importance of patient and family expectations and satisfaction. These tenets serve as the core of patient-centered or patient-oriented care, and are increasingly recognized as major components of quality services by regulators, health plans and clinicians. How strong, then, is consumer demand for preventive health care?

This is a difficult question to answer. Few national public opinion surveys have included questions about the relative importance of preventive services. The recent August 2001 Kaiser Family Foundation survey of privately insured American adults under age 65 found that their views of managed care had grown more negative over the last several years.¹²⁶ Only 39 percent of adults surveyed in 2001 felt that during the past few years, HMOs and other managed care plans had made it easier to get preventive services such as immunizations and health screenings, compared with 46 percent who felt that way in 1997.¹²⁷ In 2001, Harris Interactive conducted a research project that involved congressional members, public health professionals, the media, survivors and family of persons with serious illnesses and the public. That study found that, while congressional members felt that the lack of political will and effective interest group representation were barriers to supporting disease prevention and health promotion, the media felt the biggest barrier is a lack of public understanding. Interestingly, the public cited a lack of clarity regarding who should pay for preventive care as the biggest barrier.¹²⁸

Between 1996 and 2000, the Center for Health Improvement with The Field Institute conducted a series of public opinion surveys of the adult California public. The Center’s 2000 survey found that, overall, Californians are satisfied with their healthcare, but not entirely so. More than seven of ten insured Californians were satisfied with major aspects of their healthcare – e.g., essential needs met, good overall delivery of care – but less than half were “very satisfied.” Among insured Californians who said they had a “personal doctor,” 20 percent were somewhat or very dissatisfied with their healthcare provider’s delivery of such preventive health services as health screening, counseling and health education.¹²⁹

On the positive side, this survey found widespread interest in prevention. Between eight and nine of every ten Californians recognized the importance of changing their own behaviors to maintain and protect their own health by not smoking, not using drugs, driving safely and practicing safe sexual behaviors. Eight of ten knew that eating the right foods, not abusing alcohol, and getting immunized were important steps they could take in keeping healthy. Nearly six in ten said they actively seek out health information about medical care needs, but only half of those with a personal doctor felt their doctor

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tells them “everything they need to know” about their health options.¹³⁰ This finding is reinforced by the California HealthCare Foundation’s 1999-2000 survey of more than 4,000 California health consumers. The survey, which was conducted by the Rand Corporation, found that nearly half of respondents lack sufficient information to make health care decisions. An even greater information deficit was found among vulnerable groups such as seniors, the chronically ill, low-income populations, and Hispanics.¹³¹

Increasingly, health consumers and patients want information and that information itself should be considered as a form of care. The types of desired consumer information range from information about quality and information concerning patient-oriented diagnosis and treatment options to patient education guides and what they can do to assure optimal outcomes. Moreover, consumers are willing to make the investment. A second survey of California adults conducted by the Center for Health Improvement and The Field Institute, found that a majority of insured Californians – 57 percent – were willing to pay five percent more for health insurance premiums to increase their and their family’s access to health promotion and preventive health services.¹³² Eighty-seven percent of younger insured Californians age 18 to 29 were willing to pay more for prevention. Among the state’s racial and ethnic minorities, 69 percent of insured African Americans, 64 percent of insured Latinos, and 62 percent of insured Asians in California were willing to pay five percent more to guarantee access to prevention.¹³³ Given that most of Californians’ insurance is sponsored through their employers, the significance of this finding is unknown. As a corollary measure, one-third of insured Californians responding to the same survey said they would support increasing the amount of money their health plan spends on health promotion and disease prevention.¹³⁴

Opportunities for Patients, Payers, Providers and Systems

How can stakeholders – patients, payers or purchasers, providers and systems – all work more effectively to make preventive services more accessible? Identifying effective prevention interventions – including agreement on what constitutes sufficient evidence of effectiveness – and closing the gaps in knowledge about the effectiveness of specific preventive services presents continuing challenges to all stakeholders. Other provider, patient and systems barriers exist within the healthcare delivery systems as well, and provide ample opportunities for improvement.

A survey of a national sample of 1200 directors of managed care organizations may shed further light on barriers and facilitators in the delivery of common preventive screening services. In general, the strongest barrier to the provision of the three screening services studied (screening mammography, Pap testing and blood cholesterol screenings) was their inability to generate short-term savings for the plan. Some of the other barriers identified by the directors were high disenrollment rates, conflicting recommendations about effectiveness (for mammography and cholesterol screening), and patients’ fears about obtaining positive results. Among the incentives for delivering these three services were improved health status, high consumer awareness/demand, and long-term savings from early detection.¹³⁵ Patient barriers to participation in preventive care involve a lack of knowledge of the risks and benefits of

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clinical preventive measures, inconvenience associated with some of the measures and costs.

In theory, practice guidelines and performance measures might spur clinicians toward higher delivery rates. However, the delivery of preventive services is not that. A recent study of the delivery of 36 different services recommended by the U.S. Preventive Task Force by primary care physicians is illuminating.

The authors examined “pure” preventive services – that is, those unrelated to acute or chronic disease management – and services provided in conjunction with symptom evaluation or disease management. While preventive services were delivered in one-third of the 4454 patient visits studied, the authors found that such services were often delivered in response to symptoms or signs rather than as pure prevention. Two-thirds of the hearing tests in those aged 65 and older, for example, were delivered on the basis of symptoms. Other services often delivered for symptoms were urinalysis (40 percent of the time), sigmoidoscopy (35 percent), and hemoglobin/hemacrit testing (30 percent). Mammograms, cholesterol screening, eye examinations and counseling on car seats, poison control, and HIV prevention were delivered primarily to asymptomatic patients. Individual physician performance related to the delivery of recommended preventive services varied remarkably, with some physicians providing services as pure prevention only and others delivering preventive services only in response to symptoms.¹³⁶ Some services (dietary nutrient intake, breastfeeding, alcohol intake) varied little between pure prevention and symptom-oriented visits. Other counseling services (tobacco, dietary calories and fat, exercise) were much more commonly delivered when linked to symptoms.¹³⁷ This study suggests that there might be opportunities to link symptomatic problems with certain relevant types of prevention when patients are more willing to undergo invasive procedures or be more attentive to counseling. Conversely, there might be a way to group “pure” prevention services that clinicians and patients cognitively link together.¹³⁸

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SECTION IV: RECOMMENDATIONS

Based on the major findings and the other information presented in the Appendices of this report, the Director, Department of Managed Health Care, should initiate dialogue with industry groups and consumer groups about their reactions to the report. With regard to the five areas where service delivery is below 50 percent among California managed health care plans, the Director should give priority to Recommendations 1 through 5 that follow. In addition, Recommendations 6 through 9 address issues of a “cross-cutting” nature and are derived from the other important findings of this report, examination of the literature, and discussions with stakeholders.

Recommendation #1: Smoking Cessation

Although much of our knowledge about helping smokers to quit remains incomplete, there is more than enough evidence to act. Coverage for effective pharmacologic and counseling interventions to assist smokers to quit is incomplete and inconsistent among health plans. The Director of the Department of Managed Health Care can improve access to appropriate interventions by:

- ✓ Working with purchasers and managed care plans in California to implement policies that reinforce the view that tobacco dependence is a chronic condition.
- ✓ Promoting, as a covered benefit, tobacco cessation counseling and pharmacotherapies identified as effective, as well as adequate reimbursement for the provision of tobacco dependence treatment. (Special attention should be paid to coverage and delivery of cessation services to pregnant women, consistent with the *Practice Guidelines* issued by the Surgeon General in June 2000.)

Recommendation #2: Colorectal Cancer Screening

Despite the call for specific screening tests and/or periodic sigmoidoscopy for all persons aged 50 or older by whatever method or combination of screening techniques is currently recommended, adherence is low – 50 percent or less. Screening rates may be low due to poor patient compliance, disputes about the quality of the evidence supporting screening tests, the costs and risks associated with some tests, and the availability of clinicians trained in performing some of the screening. Given these barriers, the Director of the Department of Managed Health Care can adopt a multi-pronged educational strategy that focuses on:

- ✓ Convening a group (consumers, health plan medical directors, as well as healthcare purchasers) to gain consensus on an appropriate colorectal screening strategy (or strategies) and ways to promote its/their delivery to California managed health care enrollees age 50 and older.
- ✓ Providing consumer education to enrolled Californians age 50 and older about endoscopic procedures and other tests available to them as a covered benefit to screen for colorectal cancer.

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- ✓ Promoting patient education about the benefits and risks of screening as a way to increase compliance with clinical recommendations.

Recommendation #3: Vision Screening

Critical information about the delivery and utilization of many beneficial clinical preventive services, including visual acuity screening services for older Californians, is lacking but may be available through administrative data or other sources. To develop an accurate picture of the delivery of important clinical preventive services, the Director of the Department of Managed Health Care can provide leadership by:

- ✓ Identifying potential sources of preventive health data – e.g., survey data such as the Department of Health Services' Behavioral Risk Factor Surveillance System or administrative data such as that from Vision Service Plan of California – to determine the feasibility, cost, and utility of these data in describing delivery patterns among managed health care plans in California.
- ✓ Coordinating efforts with the Department of Motor Vehicles, which performs vision screening of older adults, to assess the possibility of strengthening processes for identifying at-risk persons and referring them to appropriate vision care providers. This information should be useful in advocating for the development of prevention-oriented performance measures at national levels and serve as one strategy to promote delivery of such important care.
- ✓ Linking new data about the delivery of clinical preventive services to the DMHC Report Card published annually.

Recommendation #4: Chlamydia Screening

Reduction in chlamydia infections requires that managed care providers be aware of the high prevalence of chlamydia and the need to screen asymptomatic patients. It also requires that they counsel chlamydia patients to arrange for treatment of sexual partners, routinely obtain a sexual history and counsel all sexually active patients about the risks of sexually transmitted diseases. The Director of the Department of Managed Health Care can facilitate broader coordinated efforts by:

- ✓ Developing model clinical practice guidelines for chlamydia screening and treatment for adoption by medical policy committees in managed care organizations and medical groups. This would include advocating for: (1) delivery of chlamydia screening services for at-risk patients in other potential points of clinical service (e.g., sports physicals, urgent care settings and emergency rooms); (2) use of non-invasive chlamydia screening tests for males and for females in settings where pelvic examinations are not routinely done; and (3) establishment of chlamydia screening as a standard of care in prenatal examinations.

Recommendation #5: Problem Drinking

Integrating alcohol assessment and counseling as a routine part of practice within managed health care organizations is challenging due to provider- and system-level

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barriers. Clinicians need tools, training and evidence of effectiveness tailored to their specific concerns. The Director of the Department of Managed Health Care can provide assistance in developing and disseminating credible counseling models for use in managed care settings by:

- ✓ Making information available about the cost, efficacy, and implementation of successful alcohol counseling/behavioral change interventions within managed care organizations.
- ✓ Convening payers and stakeholders to review evidence and develop a model benefit for counseling as part of routine care; and
- ✓ Working with the Office of the Patient Advocate and others to identify effective ways to encourage consumer demand for behavior counseling as part of routine care, including pursuing alliances with consumer groups that engage patients in their own health and health care.

Other Recommendations

Several cross-cutting issues emerged from this research. After examining the information regarding racial/ethnic gaps in delivery and utilization of important clinical preventive services by managed health care enrolled populations – especially those gaps that exist among population groups for delivery of smoking cessation services, colorectal screening, Pap testing, pneumonia vaccination, and alcohol counseling – a sixth recommendation is made. Two additional recommendations are made concerning health plan data and models being explored by other states.

Recommendation #6: Closing the Gaps

The second of two major goals of *Healthy People 2010* is to eliminate health disparities among segments of the population. These differences in health status may occur by gender, race or ethnicity, age, education or income, disability status, geographic area or sexual orientation. It was beyond the scope of the *Report* to examine delivery rates in depth among subpopulations. However, in consideration of the Department's oversight role in assuring access to quality medical care services for all populations enrolled in managed health care plans in California, the Director of the Department of Managed Health Care can build upon this *Report* by:

- ✓ Improving data collection methods, wherever feasible, so that it is possible to accurately assess at the state level the health status of subpopulations in California – including identifying, using, and expanding health-related data residing in other State agencies.
- ✓ Examining key policies to ensure equal access to comprehensive, preventive care and that culturally competent and relevant clinical preventive services are available and accessible for all people seeking care in managed health care plans.

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Recommendation #7: Improving Services for Children

Infectious diseases remain a major cause of illness, disability and death. With 65 percent of California's managed care toddlers fully immunized with five of the recommended vaccines, and 69 percent immunized against varicella, delivery rates are above the 50 percent delivery rate criterion for action utilized in this report's methodology. However, this rate falls far short of the national goal of 90 percent established for achieving and maintaining effective vaccination coverage levels. Since childhood vaccination is a clinical preventive service for which there is:

- Coverage;
- Professional consensus about efficacy;
- System-wide coordination (including collaboration with public health);
- Data collection mechanisms to describe and track its delivery through HEDIS®;
- Relatively high levels of consumer/parent awareness;

the Director, Department of Managed Health Care, should seek ways to increase vaccine delivery by:

- ✓ Collaborating with the Department of Health Services to develop a statewide immunization registry, including development of incentives for health plans to contribute data to the registry.

Recommendation #8: Risk Adjusting for Prevention

The analytic perspective of the Coffield et al study, upon which this report is based, is one of how provision of clinical preventive services to targeted populations is of benefit to society. As such, this analysis does not address the specific needs of populations served by individual health plans. The Director of the Department of Managed Health Care can encourage the development of a managed care prevention model for increased delivery of recommended clinical preventive services by:

- ✓ Seeking funding or providing other support to interested health plans for the initiation of an internal process to develop an enrollee profile (e.g., demographics, health status, receipt of preventive services, risk factors, and other information), which would be linked to the health plan's prevention priorities for appropriately promoting one or more of the clinical preventive services mentioned in this report.

Recommendation #9: Capitalizing on Models Being Developed by Other States

The Centers for Disease Control and Prevention is working with three states (Connecticut, Colorado, and Michigan) and their respective health plans and purchasers to increase the provision of clinical preventive services. Additionally, the Institute for Healthcare Innovation, Group Health of Puget Sound, and the

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Institute for Health Services Research each have worked toward developing models for disease management and prevention in collaboration with health plans and medical groups. The Director of the Department of Managed Health Care can facilitate sharing of lessons learned by:

- ✓ Commissioning a review of pertinent literature and by taking steps to identify credible prevention models developed specifically for managed care settings. The Director should work with the medical directors of health plans to organize a method to systematically review the structure, implementation, effectiveness and outcomes of these models, and make that information widely available to California health plans.

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APPENDIX A: SUPPLEMENTAL INFORMATION CONCERNING FIVE KEY PREVENTIVE SERVICES WITH DELIVERY RATES BELOW 50 PERCENT

Appendix A presents additional information on the five clinical preventive services that are being delivered at rates below 50 percent by California managed care organizations. This information is intended to supplement information provided in Section II.

Appendix A-1: Tobacco Cessation Coverage

Definition of Tobacco Use

Tobacco use means the use of any tobacco product, including smoked and smokeless tobacco products. Most of the data measures of managed care plans' performance concern use of smoked tobacco products, usually cigarettes. Despite several decades of declining rates of smoking, 17.5 percent of California adult men and 13.6 percent of adult women continue to smoke.¹³⁹

Problem Statement

- Smoking accounts for 430,000 national deaths – or one in five deaths each year. In the U.S., it is the single most modifiable cause of death and is responsible for an estimated 5 million years of potential life lost.¹⁴⁰
- Smoking is consistently linked with the occurrence of major diseases – smoking-related cancers (151,000 deaths nationally each year); coronary artery disease (100,000 deaths), respiratory diseases (85,000 deaths), and cerebrovascular disease (23,000 deaths).¹⁴¹
- Smoking is responsible for an estimated five to six percent of perinatal deaths, 17 to 27 percent of low birth weight babies, and between seven and ten percent of all pre-term deliveries.¹⁴²

Coverage Issues

A study of coverage for preventive services conducted by the University of California, Berkeley in 1999 indicated that 65 percent of California's private health maintenance organizations (that year, they numbered 23) covered some form of smoking cessation therapy as a benefit in their best selling group (over 50 employees) product.¹⁴³ The smoking cessation aid most frequently covered was bupropion or Zyban/Wellbutrin (65 percent). The 15 plans that covered bupropion made up 61 percent of the total HMO enrollment. Sixty percent required a copayment.¹⁴⁴ The nicotine patch was covered by 13 plans, with 39 percent requiring a copayment. This figure represented a decrease in access to the patch from the previous year but the change may be accounted for by the fact that the nicotine patch became available as an over-the-counter drug that year. As

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shown in Table A-1, below, behavioral smoking programs were covered in 12 plans, with 25 percent requiring a copayment.¹⁴⁵ Many of the plans indicated that coverage of nicotine replacement therapy (inhaler, gum, spray) – covered by 30 percent of the plans – was conditional upon concurrent enrollment in a behavioral smoking cessation program. Forty-one percent of plan enrollees were covered for nasal spray and inhalers, while only four percent were covered for gum.¹⁴⁶

Table A-1: Coverage of Smoking Cessation Benefits in Best-Selling HMO Group Products (50+ Members), California, 1998

Treatment Covered	# of HMOs	% of HMO Enrollees	% Requiring copayment
Bupropion	15	61%	60%
Nicotine Patch	13	47%	39%
Behavioral Programs	12	49%	25%
Nicotine Nasal Spray	7	41%	43%
Nicotine Gum	7	4%	29%
Nicotine Inhaler	7	41%	43%

Source: UC Berkeley Survey of California Health Plans, 1999. Adapted from Ref. # 11, Schauffler HH and Brown ER.

A second California survey of coverage of tobacco dependence treatments for pregnant smokers in 39 full-service health maintenance organizations addressed coverage of four services – telephone counseling, group counseling, individual counseling and self-help kits. This study found that, although 92 percent covered at least one treatment, only 44 percent covered at least one additional service like nicotine replacement therapy.¹⁴⁷ Coverage ranged from a low of 44 percent for self-help kits to a high of 56 percent for telephone counseling. Thirteen plans reported having established memoranda of understanding or contracts with other organizations to provide tobacco dependence services to their members.¹⁴⁸ Of the plans covering a service, only 67 percent monitored utilization and 28 percent of these monitored quit rates among pregnant smokers. Eighty-two percent of the plans reported that their providers screen all pregnant women for smoking, but 18 percent did not know whether such screening took place.¹⁴⁹

What Works

In 1996, the Agency for Health Care Policy and Research (AHCPR, now the Agency for Healthcare Research and Quality, AHRQ) produced an evidence-based guideline that evaluated smoking cessation interventions available at the time and concluded that the efficacy of intervention increases with intensity. Results also showed that the following interventions are effective:

- Simple advice to quit by a clinician can produce up to a 30 percent increase in cessation.
- Individual and group counseling can double cessation rates.

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- Telephone hot lines and help lines can produce a 40 percent increase in cessation.
- Nicotine replacement therapy can up to double cessation rates.¹⁵⁰

The major conclusions of *Reducing Tobacco Use: A Report of the Surgeon General*, released in 2000, invited clinicians to “ask, advise, assess, assist, and arrange.” For example, it recommended the healthcare system identify smokers by asking; advise smokers to quit and assess their interest in doing so; provide brief counseling to smokers interested in quitting; and, for smokers who want them, arrange for pharmacotherapy and/or behavioral interventions.¹⁵¹ The new guideline continues to recommend brief advice to quit from a clinician as a first step but recommends additional, more intensive behavioral interventions. California-specific data suggests low delivery of these recommendations among health plans and clinicians. In 1999, 60 percent of smoking enrollees of health plans reported they had been advised by a clinician to quit smoking.¹⁵² However, only 12 percent of smokers say a quit date had been suggested by their doctor during the previous 12 months, eight percent had been given a prescription to aid quitting by their doctor, and ten percent said their doctor had suggested other assistance in quitting.¹⁵³

Benchmarks and Recommendations by Others

In June 2000, the U.S. Surgeon General released clinical practice guidelines for smoking cessation programs and recommended that “because of the serious risks of smoking to the pregnant smoker and fetus, whenever possible, pregnant smokers should be offered extended or augmented psychosocial interventions that exceed minimal advice to quit.”¹⁵⁴ With regard to adult smokers, the guideline concludes that tobacco dependence treatments are both clinically effective and cost effective relative to other medical and disease prevention interventions. It recommends that health care insurers and purchasers include, as a covered benefit, the counseling and pharmacotherapies identified as effective and to pay clinicians for providing tobacco dependence treatment, just as they do for treating other chronic conditions.¹⁵⁵

The *Healthy People 2010* national objectives set benchmarks based on what is achievable with current technology. The national 2010 objective for adult cigarette smoking among adults aged 18 and older is 12 percent of the population. A related objective is to increase smoking cessation attempts by adult smokers to 75 percent (currently 41 percent do so). With regard to cessation attempts by pregnant women: nationally, 13 percent of pregnant women smoke¹⁵⁶ and only 14 percent of pregnant smokers quit during their pregnancies.¹⁵⁷ The national *Healthy People 2010* objective is to increase this proportion to 30 percent. At present, nationally 75 percent of managed care organizations cover evidence-based nicotine dependency treatments. The national objective would raise this level to 100 percent coverage of FDA-approved pharmacotherapies and behavioral therapies.¹⁵⁸

In January 2000, the Pacific Business Group on Health Negotiating Alliance approved the following new coverage language for nine health maintenance organizations covering 400,000 California enrollees: “Coverage must be provided for effective

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smoking cessation drugs – nicotine replacement therapy, bupropion, or clonidine. Over-the counter (OTC) nicotine replacement therapy (i.e., nicotine patches or gum) is covered. The cost is prescription drug therapy copay for a 30-34 day supply and plans may limit coverage to four prescription fills per calendar year. Plans may impose utilization controls on OTC drugs. Coverage must also be provided for smoking cessation behavioral interventions that may include at least four group counseling sessions for at least 30 minutes in length, or the plan's own program, if approved by PBGH. Smoking cessation counseling sessions are separate from the mental health benefit. Plans may require participation in smoking cessation behavioral interventions in order to access the pharmacy benefit. Health plan members may access this benefit through the health plan, primary care provider, or company resource."¹⁵⁹

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Appendix A-2: Colorectal Cancer Screening

Definition of Colorectal Cancer Screening

Colorectal cancers are any cancers arising in the colon or rectum. Because of its high prevalence, long asymptomatic phase, and the presence of a treatable pre-cancerous lesion, colorectal cancer meets the ideal criteria for screening (the types of screening tests are described below). Average-risk patients are defined as those men and women over the age of 50 without a family history of colorectal cancer and without symptoms or signs of the disease. Because increasing age is a risk factor for the development of colorectal cancer, screening of asymptomatic persons for colorectal cancer (e.g., early detection of the disease) beginning after age 50 years can be highly effective in reducing disease and death. Detection of colorectal cancer at its earliest stage carries with it a 90 percent curative rate, as compared to an 8.3 percent five-year survival rate among persons with colorectal cancers that have already metastasized.¹⁶⁰

Problem Statement

- Colorectal cancer is the third leading cause of cancer-related deaths in California, accounting for 5,190 deaths of the state's 52,925 cancer deaths in 2001.¹⁶¹
- An estimated 14,645 Californians will be diagnosed with colorectal cancer (new cases) in 2001, about evenly distributed among men and women.¹⁶²
- The risk of being diagnosed with colorectal cancer during one's lifetime – based on current cancer incidence and mortality rates is relatively high – one in 17 (men) and one in 19 (women), ranking after breast cancer, prostate cancer and cancer of the lung and bronchus.¹⁶³
- The colon and rectal cancer incidence rate in California declined by more than 15 percent between 1988 and 1998. The reasons for this decline are not well understood but some researchers believe more colon polyps are being removed before cancer develops.¹⁶⁴
- Stage at diagnosis indicates how far a cancer has spread when it is first discovered. The incidence of both early- and late-stage colorectal cancer has decreased in California since 1998, but the decrease was about twice as large for late-stage disease.¹⁶⁵

Compliance Issues

In general, patients in health maintenance organizations appear to have higher utilization of cancer screening tests than patients in fee-for-service insurance. However, even in similar health maintenance organizations, care given to patients will likely vary with the providers and the organizational characteristics of the medical group or practice association providing care under contract to the organization. This is important because in California, the network model managed health care organization has become the predominant model. A recent survey of the medical directors of 174 physician organizations in a California network model health maintenance organization (Blue

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Cross CaliforniaCare) found that the majority had guidelines and office-based patient reminder systems aimed at improving cancer screening. However, these activities were reported more frequently for mammography and Pap testing than for colorectal cancer screening. About half of providers used mail reminders for mammography and Pap tests, but few did so for colorectal cancer screening. More importantly, most medical directors believed FOBT to be a reasonable strategy for managed care patients; fewer believed screening sigmoidoscopy for patients aged 50-70 years was reasonable.¹⁶⁶

The authors of the study of cancer screening practices in California cited above speculate that it may take many years for new evidence and guidelines to diffuse into clinical practice.¹⁶⁷ Studies showing the benefit from breast cancer and cervical cancer screening were first released in the 1960s, with guidelines first disseminated in the 1970s. Breast and cervical cancer screening became widespread a decade later. The influence by the National Committee for Quality Assurance on breast and cervical cancer screening rates for participating plans may also have spurred plans to introduce office systems to improve rates of Pap tests and mammography.¹⁶⁸ By comparison, the first evidence-based guidelines on colorectal cancer screening were not published until 1996. Also, the cost of colorectal cancer screening may be a factor contributing to less frequent use of office systems.

The prevalence and nature of state mandates for insurer coverage of cancer screening can be a tool to spur delivery rates. A national study of mandated state coverage for cancer screening services up to 1999 found that of the 85 mandates in place, 57 were enacted since 1990 and only one (Illinois) covered colorectal screening by private insurers. No state screening coverage mandate reflected the U.S. Preventive Services Task Force recommendations.¹⁶⁹ Since 1999, eight states have enacted laws requiring insurers to cover colorectal screening tests. (Missouri, California, Wyoming, Indiana, Virginia, Rhode Island, Delaware, and West Virginia offer some types of access to care assurances). Two states mandate tests in accordance with American Cancer Society guidelines and one state calls for frequency determined by the patient's physician.¹⁷⁰

Since cost of colorectal screening is often cited as a patient barrier to utilization, the recent changes in coverage by government-sponsored insurers may prove beneficial in increasing screening rates. As of January 1, 1998, Medicare began reimbursing for colorectal screening tests (covering annual FOBT and flexible sigmoidoscopy every 4-5 years in average risk patients and a colonoscopy every two years in high-risk patients). The National Committee on Quality Assurance, in recognition of the importance of colorectal screening, included it as a testing set measure in HEDIS[®] 3.0. Beginning July 1, 2001, Medicare expanded its coverage of colorectal cancer screenings by funding colonoscopies for all beneficiaries. In accordance with legislation passed in 2000, Medicare will now cover four types of colorectal cancer screenings for all beneficiaries as follows:¹⁷¹

- **FOBT:** Involves no copayment or deductibles, available every year.
- **Flexible Sigmoidoscopy:** Covered every 4 years, involves approximately a \$20.00 copayment.

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- **Colonoscopy:** Covered every 10 years, involves approximately a \$76.00 copayment.
- **Barium Enema:** Offered as an alternative to either sigmoidoscopy or colonoscopy.

Benchmarks and Recommendations by Others

The American Cancer Society recommends that one of the following procedures be employed beginning at age 50: 1) annual fecal occult blood testing, digital rectal examination, and flexible sigmoidoscopy every five years; or 2) colonoscopy and digital rectal examination every ten years; or 3) double contract barium enema and digital rectal examination every five to ten years.¹⁷² Several other health professional groups, such as the American Gastroenterological Association and the American Society for Gastrointestinal Endoscopy have made similar recommendations.¹⁷³

The American College of Radiology recommends barium enema as an alternative to sigmoidoscopy and also advocates an interval of every three to five years.¹⁷⁴

The Canadian Task Force on the Periodic Health Examination recommends persons with a history of cancer family syndrome should be screened with colonoscopy.¹⁷⁵

In 1996, the Agency for Health Care Policy and Research, now the Agency for Healthcare Research and Quality, found sound evidence that reductions in colorectal cancer morbidity and mortality can be achieved through detection and that screening tests achieve accurate detection of early stage cancer and its precursors. Noting the lack of consensus concerning the choice of screening and surveillance tests, it reviewed the scientific literature and reported that colorectal cancer mortality could be reduced 15 to 33 percent by FOBT and diagnostic evaluation and treatment. Screening with flexible sigmoidoscopy could reduce colorectal cancer mortality risk in that part of the colon examined by 59-80 percent. Screening colonoscopy offers the potential to both identify and remove cancers and premalignant lesions, but no studies had been conducted at that time that indicate a mortality reduction associated with screening colonoscopy. Overall, evidence pointed to a low level of awareness about the risks of colorectal cancer and its symptoms among adult Americans.¹⁷⁶

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Appendix A-3: Vision Screening

Definition of Visual Impairment

Visual impairment means having visual difficulty to the point where normal human functions are compromised. The Centers for Disease Control and Prevention defines visual impairment as vision loss that cannot be corrected by glasses or contact lenses alone. Visual impairments in older adults have four main causes: cataracts, age-related macular degeneration, glaucoma, and diabetic retinopathy.

Problem Statement

- Visual disorders are extremely common. National data indicate that 8.5 million Americans suffer from some type of visual impairment.¹⁷⁷
- Data from national surveys indicate that 13 percent of adults age 65 and older have some form of visual impairment, and almost 8 percent of this age group have severe visual impairment – e.g., severe blindness in both eyes or inability to read newsprint with corrective glasses.¹⁷⁸
- Many adults are unaware of changes in their vision; up to 25 percent may be using an incorrect lens prescription.¹⁷⁹
- Visual deficits in older adults are commonly left uncorrected. Among persons aged 65-74 years, a visual acuity of 20/50 or less has been measured in 11 percent of those who are wearing eye glasses and in 26 percent of those who do not.¹⁸⁰
- Some forms of visual impairment in older adults are associated with difficulties in ambulation,¹⁸¹ and early correction prevents injuries and ability to perform normal daily functions. Approximately 1.8 million noninstitutionalized elderly report some difficulty with basic activities such as bathing, dressing, and walking around the house in part because they are visually impaired.¹⁸²
- Visual acuity disorders in older adults constitute an important non-fatal disease cause of disability. Blindness in both eyes is the third leading cause of disability associated with needing help in eating, bathing or getting around the house and blindness in one eye ranked thirteenth.¹⁸³
- Visual decline is associated with unmet needs and the ability to remain independent.¹⁸⁴

Persons living in California who reach age 65 years have a high probability of living to age 80 and beyond. Numerous health problems accompany the last decades of life. Access to clinical preventive services can reduce premature morbidity, as well as mortality. The majority of vision impairments occur in adults. Visual disorders, such as presbyopia (decreased ability to focus on near objects), become more common with age and the prevalence of visual impairments is highest in those over the age of 65 years. Nationally, 92 percent of those aged 70 and above wear prescription glasses. Trouble seeing even with glasses rises from 14 percent among those aged 70-74 to 32 percent in those aged 85 and older. Even so, fewer than 2 percent of persons aged 70

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and older with a visual impairment reported using other equipment (telescopic lenses, braille, readers, canes, or computer equipment) to help them overcome their disability.¹⁸⁵ Visual disorders in older adults are associated with injuries due to falls and motor vehicle accidents, diminished work productivity, and poor quality of life. According to national statistics, many older adults may be unaware of changes in their vision and a significant proportion may be using incorrect prescriptive lenses.

Vulnerable Populations

In 1995, approximately one-fourth of noninstitutionalized people age 70 and older reported having cataracts, which are more common in women than in men. Age-related macular degeneration (AMD) is the leading cause of irreversible visual impairment in the elderly – affecting one-fourth of those aged 70 and older. In the adult population, its prevalence greatly increases with age. Among those aged 70 and older, AMD is more common in women than in men and in White than in older African American populations. Glaucoma is twice as common among the African American elderly and this holds true for both men and women. Diabetic retinopathy is not clearly related to advancing age; approximately 4 percent of men and 6 percent of women 70 years of age and older reported having diabetic retinopathy.¹⁸⁶

Benchmarks & Recommendations by Others

- Periodic eye examinations (every two years), including acuity testing, are recommended for all adults by the American Optometric Association.
- Periodic eye examinations (every two years), including acuity testing, are recommended for all adults over age 40 by the American Academy of Ophthalmology.
- Both groups advise routine screening of visual acuity for individuals age 65 and older.

Data Issues

Review of existing billing information at the health plan level may provide additional information and collection of existing data from administrative claims databases is a reasonable initial step in illuminating the problem. We can begin by modifying California's Behavioral Risk Factor Surveillance Survey so that, in addition to providing population-wide data on lifestyle and risk behaviors and key clinical preventive services (i.e., Pap testing and screening mammography), it provides information on a full range of preventive services by type of insurance and health plan enrollment. State advocacy – working with the National Committee for Quality Assurance to include a measure of vision screening on future versions of HEDIS® would serve to spur the collection of useful information and development of office systems to promote this and other valuable clinical preventive services within managed health care organizations.

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Appendix A-4: Screening for Chlamydia

Definition of Chlamydial Infections

Chlamydial infections are sexually transmitted diseases caused by the bacteria, *Chlamydia trachomatis*. Infection can cause urethral and vaginal discharge and pain; however many infected persons are without symptoms. Untreated chlamydial infections are easily spread between sexual partners and are associated with severe health consequences for women and infants.

Problem Statement

- More than 58,700 cases of chlamydia were reported in California in 1997 – of that number 53,557 were in women; due to under-reporting and undiagnosed infections, the Department of Health Services estimates that closer to 300,000 women and their partners are infected annually.¹⁸⁷
- Reported cases of chlamydia in California in 1997 represented 15 percent of the cases reported nationally and two-thirds of all reportable communicable diseases in California.¹⁸⁸
- Between 5 and 10 percent of sexually active girls are infected; 38 percent of reported infections occur in girls aged 15-19 years and another 32 percent occur in 20-24 year-old women.¹⁸⁹
- The overall reported rate of chlamydia among California women in 1997 was 325 cases/100,000 women. Chlamydial infection rates among men are more poorly defined due to a lack of testing and use of insensitive tests when testing does occur.¹⁹⁰ Among adolescents and young adults, some groups are at higher risk for infection and re-infection than others: In 1997, the chlamydia case rate among African Americans in California (411.5/100,000) was almost twice that of the overall case rate of 208.5/100,000. Case rates among Latinos (205.9/100,000) were four times that of non-Hispanic whites (44.7/100,000) and Asian and Pacific Islanders (51.7/100,000).¹⁹¹
- In 1997 in California, 6.7 percent of adolescent girls screened in managed health care settings were infected with chlamydia, roughly equal to the prevalence of chlamydia among girls screened in family planning facilities.¹⁹²
- In 1997, fewer than 20 percent of sexually active young adults were being offered screening in managed care settings in California.¹⁹³

Chlamydial infection is the most common communicable disease in California. It is responsible for a large proportion of the state's cases of pelvic inflammatory disease (an important cause of chronic pelvic pain, infertility and ectopic pregnancy). A majority (70 to 90 percent) of persons infected with chlamydia, especially women, are asymptomatic and most cases go undetected.¹⁹⁴ The incidence of chlamydia infections is widespread throughout California. Nearly 60 percent of California's 58 counties report at least 100 cases of chlamydia each year.¹⁹⁵

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Benchmarks & Recommendations By Others

Screening for chlamydia in asymptomatic sexually active female adolescents (under age 20) and in other women with risk factors for infection is recommended by the Centers for Disease Control and Prevention, the American College of Obstetricians and Gynecologists, the American Academy of Pediatrics, Bright Futures, the American Medical Association, the American Academy of Family Physicians, and the Canadian Task Force for the Periodic Health Examination.¹⁹⁶ Some of these organizations also make recommendations for adolescent males and young men at high risk (e.g., under age 25, multiple sex partners in past three months, inconsistent use of barrier contraception, diagnosis of other sexually transmitted diseases).

The *Healthy People 2010* national health objectives set the benchmark of reducing the proportion of adolescents and young adults with *Chlamydia trachomatis* infection to 3.0 percent in public and family planning clinics. A second objective is to increase the proportion of primary care providers who treat patients with sexually transmitted diseases and who manage cases according to recognized standards from 70 percent (baseline) to 90 percent by 2010. Developmental objectives (meaning there were few baseline data) were proposed to increase the proportion of sexually active females aged 25 years and under who are screened annually for chlamydia infections and to increase the proportion of local health departments that have contracts with managed care providers for the treatment of nonplan partners of patients with bacterial sexually transmitted diseases (gonorrhea, syphilis, and chlamydia).¹⁹⁷

The California Department of Health Services recommends that within public and private healthcare clinical settings, the proportion of sexually active adolescent girls and young women be screened at least annually for chlamydia infections and sexually active adolescent males be screened at least once by age 18 years.¹⁹⁸

Control Issues

Despite the availability of screening tests and effective treatment, overall the United States has fallen behind other industrialized nations in controlling sexually transmitted diseases. For example, in Canada, a country with a national chlamydia control program of comprehensive screening and treatment, rates of chlamydia have decreased almost 50 percent from 1991-1997, while California rates have remained unchanged during that same time period.¹⁹⁹ The Centers for Disease Control and Prevention estimates that an effective screening and treatment program in California could be conducted for an annual cost of \$26 million (1997 dollars), resulting in more than \$300 million in savings to individuals, health plans, and government.²⁰⁰

Yet, sexually transmitted diseases, including chlamydia, remain largely unrecognized by the public, individuals at high risk, and by health professionals. They are behavior-linked diseases that result from unprotected sex. Biologic factors (their asymptomatic nature, gender and age) as well as social and behavioral factors (marginalization and access to care including coverage that imposes a copayment or that excludes basic preventive health services) play a huge role in their continued spread. Changing sexual

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behaviors and norms at the individual and societal levels will be an important part of any long-term strategy to develop a more effective system of prevention. A portion of this individual responsibility involves education to ensure responsible sexual behavior, delaying the initiation of intercourse, reducing the number of sex partners, and increasing use of effective barrier contraception.

Because most health care in California is delivered in the private sector by managed health care organizations, independent practice organizations, independent management groups and other providers can improve screening rates through the distribution of educational materials to both their enrolled members, and physicians. It would also involve health care providers talking comfortably and knowledgeably with patients about sexual risk, counseling about risk avoidance, and regular screening when indicated.

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Appendix A-5: Problem Drinking

Definition of Problem Drinking

Problem drinking is defined as any alcohol consumption leading to medical or social problems. Alcoholism (or alcohol dependence) represents only one end of the spectrum of problem drinking. It also includes non-dependent drinkers with medical or social problems due to drinking and persons who are at future risk due to heavy drinking or “binge” drinking.

Problem Statement

- More than half a million Americans are currently under treatment for alcoholism, with awareness of the true magnitude of the problem only now being recognized: in detailed community surveys, the prevalence of alcohol abuse and dependence among men during the previous year was 17-24 percent and the prevalence among women was 4-10 percent.^{201,202,203,204}
- Eight to 20 percent of patients seen in primary care settings are problem drinkers.²⁰⁵
- Medical problems associated with alcohol use include psychosis, hepatitis, cirrhosis, pancreatitis, thiamine deficiency, dementia, and cardiomyopathy; however, non-dependent drinkers account for the majority of alcohol-related morbidity and mortality.²⁰⁶
- More than 100,000 deaths are attributed to alcohol use each year, including 44 percent of all traffic fatalities, half of unintentional and intentional injuries, and a substantial proportion of deaths from fires, drownings, homicides and suicides.^{207,208}
- In 1996, alcohol-related emergency department visits (2.2 million) accounted for 2.4 percent of all visits, with visits related to both alcohol and drugs accounting for an additional 0.4 percent of visits.²⁰⁹
- Nearly 20 percent of drinkers report problems with friends, family, work, or police due to drinking.²¹⁰
- Any level of drinking during pregnancy may influence the expression of Fetal Alcohol Syndrome, but surveys indicate that 12-14 percent of pregnant women continue to consume alcohol during their pregnancies.²¹¹

Benchmarks & Recommendations by Others

Both the American Medical Association and the American Academy of Family Physicians recommend that physicians be alert to the signs and symptoms of alcohol abuse and should routinely discuss patterns of use with patients.^{212,213}

The Canadian Task Force on the Periodic Health Examination and the 1990 Institute of Medicine Panel on Alcohol and Health recommend screening adults for problem drinking, using standardized inquiry or instruments, and offering brief counseling to non-dependent problem drinkers.^{214,215}

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The U.S. Surgeon General, the American College of Obstetricians and Gynecologists, and the American Academy of Pediatrics advise counseling all women who are pregnant or planning on pregnancy that drinking can be harmful to the fetus and that abstinence is the safest policy.^{216,217}

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APPENDIX B: OTHER FINDINGS CONCERNING CLINICAL PREVENTIVE SERVICES WITH DELIVERY RATES ABOVE 50 PERCENT

The Coffield et al study found that eight of the top 14 high-yield clinical preventive services are delivered at overall national rates below 50 percent. Research completed for this report examined similar California data for all 14 measures to determine California-specific delivery rates among managed health care plans. Based on these data, the delivery rate for one service the Coffield study identified as nationally below 50 percent was found to be higher based on more recent data for California: vaccinating adults age 65 and older against pneumococcal disease – which was found to be delivered to 68 percent of older Californians in managed care plans.²¹⁸

For those services for which Coffield et al found the national delivery rates to exceed 50 percent, California delivery rates are also above 50 percent. California data indicate that among managed health care plans, delivery rates were above 50 percent for seven of the top 14 high-yield services: childhood vaccination; screening for cervical cancer; screening of newborns for hemoglobinopathies, PKU and congenital hyperthyroidism; screening all persons for hypertension; vaccinating older adults against influenza; screening for high blood cholesterol; and vaccination against pneumococcal disease in older adults.

Only limited California-specific data were found concerning physician advice to adolescents enrolled in managed care plans on tobacco use prevention or on drinking and drug use. A 1992 survey of California physicians²¹⁹ suggested delivery rates of over 50 percent, but the generalizability of these findings to the entire state may be limited.

With regard to all of the clinical preventive services examined, a delivery rate of above 50 percent, while commendable, is still short of many national targets that set benchmarks for what can be achieved given the current state-of-the-art. Moreover, each of these high-yield clinical preventive services has behind it convincing evidence that the benefits of delivery outweigh potential harms. Promoting their implementation rests with individual practitioners, healthcare systems, payers, employers and consumers. Each of these services which fell above the “half-way” mark is addressed on the following pages.

DO NOT CIRCULATE**Appendix B-1: Vaccinate Children**

The key strategy for eliminating vaccine-preventable diseases is universal childhood immunization. The national objectives, as stated in *Healthy People 2010*, include adequately vaccinating at least 90 percent of young children aged 19 to 35 months using each of several universally recommended vaccines. Immunization rates for California's infants and toddlers have increased steadily over the last 10 years. In the most recent National Immunization Survey conducted in 2000, the total California infant/toddler population – including those enrolled and not enrolled in managed care plans – had a 52 percent rate for complete vaccination (i.e., subjects had received all immunizations except hepatitis B) and a 75 percent rate for full immunization (i.e., subjects had received all suggested immunizations excluding hepatitis B and varicella).²²⁰ According to HEDIS[®] data for the year 2000, the California vaccination rate for children in managed care plans (i.e., subjects receiving all immunizations including hepatitis B), is 65 percent.

Burden

Because of widespread use of vaccines over the last few decades, many diseases are much less common in children, including diphtheria, pertussis, tetanus, poliomyelitis, measles, mumps, rubella and congenital rubella syndrome. Nationally, poliovirus vaccination alone has decreased the number of paralytic cases by the thousands, as 20,000 cases were seen in 1952 and 10 cases were seen in the next outbreak in 1979. (The vaccine was introduced in 1955). Pertussis (whooping cough) has declined to 4,617 cases²²¹ from 74,715 in 1948. The slight rise in pertussis in recent years has been attributed to the likelihood of unvaccinated infants and children. *Haemophilus influenzae* type-B has declined by an estimated 95% in children under age 5 (41 out of 100,000 cases were reported in 1987 compared to 2 out of 100,000 in 1994, when the vaccine was first licensed). Hepatitis B affects only 1% of children under 5 while Hepatitis B Virus (HPV) affects 1-3% annually. However, children under 5 account for 20-30% of chronic infections, which can lead to severe complications such as chronic active hepatitis, cirrhosis, and hepatocellular carcinoma. Hepatitis A (acute liver inflammation²²²) affected nearly 27,000 people in 1994. Varicella-zoster virus is the illness that causes chickenpox and infects 90% of Americans by the age of 15. Most adults are immune.

Trends

Incidence of infectious vaccine preventable disease in California has dropped. There have been dramatic drops in the incidence of *H. influenzae* type-B among infants and young children since the introduction of the vaccine – from over 600 cases in 1990 to only a few cases in 1999. Incidence of measles also continues to decrease with only 17 cases reported in California in 1999. However, continued vigilance and timely immunizations are necessary to prevent a repeat of the measles epidemic that resulted in over 17,000 cases in California between 1989-1991. Despite successes, pertussis (especially among infants, school-aged children and adults), has been of concern. Some 1,106 cases were reported in 1999 – the highest level since 1963.²²³

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Costs & Benefits

According to the Centers for Disease Control and Prevention, for every \$1.00 spent on immunizations, up to \$16.00 is saved in medical costs. In California, the 1989-1991 measles epidemic resulted in over \$31 million in direct medical care and outbreak control costs.²²⁴

Vulnerable Populations

Many cases of pertussis occur in unvaccinated or inadequately vaccinated infants and children. Nationally, the highest rates of *H. influenzae* type-B disease occur in Alaska Native and certain Native American populations. Hepatitis B and Hepatitis B Virus disproportionately affect children because they are most likely to develop severe complications as a result of the disease. Children aged 5-14 years have the highest rate of reported Hepatitis A (about 15 cases per 100,000 in 1993). High-risk groups include some religious communities, Alaska Native, Pacific Islander, and Native American populations. Those who are institutionalized, in custodial care, or in day care centers seem to be more susceptible to the contagious disease. Varicella -zoster virus (chickenpox) disproportionately affects children. Infants who become infected are at high risk for complications.²²⁵

In California, the 1999 California Kindergarten Retrospective Survey indicates that African American and Latino children continue to be immunized at lower rates than non-Hispanic Whites and Asians, although rates for Latino children have shown an 11 percent increase over the last five years.²²⁶ Results from the 2000 survey show that almost all race/ethnic groups showed improvement over 1999, although this was not true for African American children.²²⁷

California Managed Care Data and Measures

As shown in Table B-1 (next page), just over half of toddlers enrolled in California commercial HMO plans were fully immunized against all diseases for which vaccines are universally recommended, according to California's reporting on the Childhood Immunization Status measure of the HEDIS[®]. The measure's various components represent the percentage of enrolled children who turned two years old during the measurement year, who were continuously enrolled for 12 months immediately preceding their second birthday (up to 45 day gap allowed), who were identified as having received four DTP/DTaP, three IPV/OPV, one MMR, two H influenza Type-B, three hepatitis B and/or one chicken pox vaccine(s) by the second birthday. Performance is tracked for each disease separately, as well as for two different combinations designed to measure the percentage of toddlers who are fully vaccinated. Combination 2 measures the percentage of these toddlers who have received the appropriate number of doses of all six of the recommended vaccines. For 1999, the HMO delivery rate for Combination 2 was 52 percent.

A separate measure, Combination 1, tracks performance on a slightly less comprehensive package of vaccines: everything in Combination 2 except varicella.

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Although recommended for universal administration in this age group, many assessments of the percentage of children who are “fully immunized” do not include varicella vaccination in the analyses, and some do not include Hepatitis B. The fewer vaccines included in the measurement, the higher the delivery rates tend to be, as some children receive some of the vaccines but not all. For 1999, California’s HEDIS[®]-reporting HMOs demonstrated a 65 percent delivery rate for Combination 1, which includes DTP/DtaP, IPV/OPV, MMR, HiB, and Hepatitis. HEDIS[®] reporting on varicella immunization alone indicated that 69 percent of the children had received this between their first and second birthdays.

Table B-1: CHILDHOOD IMMUNIZATION DATA OVERVIEW	California HMOs: HEDIS[®]	California Overall: NIS	National HMOs: HEDIS[®]	National Overall: NIS
USPSTF recommendation: Vaccinate children: DTP/DtaP, MMR, Oral Polio/IPV, Hib, Hep B, and Varicella				
Measurement year 1999				
NIS: DTP/DtaP, MMR, Oral Polio/IPV, Hib, and Hep B ¹	n/a	NR	n/a	73.2%
HEDIS [®] combination #1: DTP/DtaP, MMR, Oral Polio/IPV, Hib, and Hep B ²	65%	n/a	63.73%	n/a
HEDIS [®] Combination #2: DTP/DtaP, MMR, Oral Polio/IPV, Hib, Hep B, and Varicella ³	52%- ³	n/a	47.56%	n/a
Measurement year 2000				
NIS: DTP/DtaP, MMR, Oral Polio/IPV, Hib, and Hep B ¹	n/a	72.3% ⁴	n/a	72.8% ⁴
HEDIS [®] combination #1: DTP/DtaP, MMR, Oral Polio/IPV, Hib, and Hep B ²	NR	n/a	NR	n/a
HEDIS [®] Combination #2: DTP/DtaP, MMR, Oral Polio/IPV, Hib, Hep B, and Varicella ³	NR	n/a	NR	n/a
Varicella ⁴	NR	NR	NR	67.8% ⁵

n/a Not applicable

NR Not reported. For HEDIS[®], not reported because measure was rotated out in HEDIS[®] 2001 (re: year 2000). For CA overall varicella, this was not found in the NIS data.

¹ Similar to combination #1, but these are National Immunization Survey 2000 data on 19-35-month-olds, and the dosing requirements called for one additional Hib dose.

² Received on or before 2nd birthday, per dosing schedule: DTP/DtaP-4 doses, MMR-1 dose, Oral Polio/IPV -3 doses, Hib-3 doses, and Hep B-3 doses. (Or, for each, documented history of the illness or seropositive test result.)

³ Same as footnote 1, but also with 1 dose varicella (or documented illness/seropositive test).

⁴ NIS 2000 data on 19-35-month-olds.

Children with a documented history of the illness or for whom there was a seropositive test result were also included in the count of those immunized. Immunocompromised children for whom a vaccination was contraindicated could be excluded from the calculation of screening rates. As HEDIS[®] reporting is voluntary for HMOs and publicly reporting plans tend to score higher than non-publicly reporting plans, it is possible that the true statewide HMO average is slightly lower.

Opportunities

Only approximately two-thirds of young children enrolled in California’s managed health care plans are fully immunized against vaccine-preventable diseases – despite regulatory measures to raise immunization rates and keep them high. Hepatitis B vaccine was added to child care and kindergarten entry requirements in 1997 and has

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been required for entry into 7th grade since 1999; the state's 50,000 licensed family day care homes now require immunizations and immunization requirements for preschoolers were incorporated into CalWORKS, effective in January 1998.

Most immunizations are given by private providers. Efforts must expand to ensure that all providers have a technical understanding of immunization fundamentals, current schedules, and new vaccines (hepatitis A, Lyme, pneumococcal disease in infants). Staff training, administration techniques, and risk communication with parents are key quality assurance measures that can increase delivery rates. Since anti-immunization groups, as well as growing public concerns about bioterrorism and antibiotic resistance, exist in California, continued public education is also needed. Proactive responses to misinformation in the media and other steps to maintain the public's confidence in vaccines are important.

Additionally, the Task Force on Community Preventive Services provides the following recommendations for interventions to increase vaccination coverage rates in three areas: (1) Interventions for Increasing Community Demand; (2) Intervention Strategies for Enhancing Access to Vaccination Services, and (3) Provider-based Interventions. To increase community demand, the Task Force strongly recommends, based on an examination of the evidence, the use of client reminder/recall systems and also multi-component interventions coupled with educational strategies. Reducing out-of-pocket costs was strongly recommended to enhance access to vaccination services. There were two strong recommendations for provider-based interventions. First, to increase use of provider reminder/recall systems, and second, to assess and provide feedback to physicians on their delivery of vaccination services.²²⁸ Decision makers should consider these evidence-based recommendations and local needs, goals, and constraints when choosing appropriate interventions.

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Appendix B-2: Assess Adolescents for Drinking/Drug Use/Tobacco Use & Provide Counseling

Substance use – alcohol, tobacco, and other drugs – remains an important problem among adolescents. The majority of addiction to tobacco products is initiated during adolescence. Age of onset of drinking strongly predicts the development of alcohol dependence. Use of illicit drugs may interfere with school, increase the risk of injuries, contribute to unsafe sexual behaviors, and progress to more harmful drug use. *Healthy People 2010* has set national objectives for drug-free youth to increase the proportion of youth who have never used drugs, and to decrease the proportion of youth who say that they have used illicit drugs in the past month – including the use of steroids, use of inhalants, and adolescent tobacco use. With regard to youth smoking, objectives were developed for prevalence, initiation of tobacco use, age at first tobacco use, cessation by youth, adolescent disapproval of tobacco use.²²⁹ The 8th California Student Survey conducted during the 1999-2000 school year found that 20 percent of 7th graders, 26 percent of 9th graders and 39 percent of 11th graders reported using an illicit drug at least once in the past six months. Rates of drinking had fallen for the first time in 15 years, although still remained high: 35 percent of 7th graders, 52 percent of 9th graders and 66 percent of 11th graders reported drinking alcohol in the past six months.²³⁰ The youth smoking rate in California is about 11 percent.²³¹

Burden

Substance abuse and its related problems are among society's most pervasive health and social concerns. Tobacco use is the leading cause of preventable death in the United States, causing 430,000 deaths each year.²³² Nationally, each year 100,000 deaths each year are related to alcohol consumption; illicit drug use and related AIDS deaths account for another 12,000 deaths.²³³

Trends

National trends indicate that use of alcohol within the past month by adolescents aged 12 to 17 years has declined overall since 1979. In 1997, 20 percent of adolescent males and 19 percent of adolescent girls used alcohol in the past month.²³⁴ Drug use among adolescents age 12 to 17 years has doubled between 1992 and 1997.²³⁵ National data from two sources – the Monitoring the Future Study and the Youth Risk Factor Behavior Survey – indicate that, overall, youth smoking has increased 20 to 36 percent since 1991.^{236,237} Data from the 2000 National Household Survey on Drug Abuse of youths aged 12 to 20 years found that youth smoking declined from 14.9 percent in 1999 to 13.4 percent in 2000. Teenage girls had a smoking rate higher than that of boys – 14.1 percent, compared to 12.8 percent. In 2000, 9.7 percent of teenage youths reported having used an illicit drug, which was about the same as the rate the year before. Among teens aged 12 to 20 years, 27.5 percent reported drinking alcohol in the previous month and of those 18.7 percent reported binge drinking.²³⁸

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Costs & Benefits

The national economic cost of illicit drug use (all ages) in 1995 was \$276 billion.²³⁹ The overall economic costs of tobacco use in California were estimated at \$8.7 billion in 1993.²⁴⁰ The U.S. Preventive Services Task Force found insufficient evidence for or against routine screening but felt routine questions on drug use could be included as part of the patient's history, based upon the prevalence of drug use and its serious consequences. It recommended that anti-tobacco messages be included in health promotion counseling of children, adolescents and young adults, but cautioned that the evidence for the effectiveness of clinical counseling to prevent initiation of tobacco use is less clear.²⁴¹ But, as the Coffield study noted, clinician advice must reach only one third of the one percent of adolescents who would otherwise become adult smokers (or approximately 0.12 percent of all adolescents) for these services to be cost saving.²⁴²

Vulnerable Populations

All youth are placed at increased risk of initiating tobacco, alcohol, and drug use by virtue of their developmental age, as well as sociodemographic, environmental, and personal factors. Such factors include the accessibility and availability of tobacco products, alcohol and drugs, personal perceptions of risks, limited ability to refuse, and lack of parental involvement. For tobacco, alcohol, and some drugs, adolescent males appear to be at slightly higher risk of use than females.²⁴³

California Managed Care Data and Measures

Statewide data on the delivery of alcohol, drug, and tobacco use screening by clinicians were not found for adolescents. While these preventive services are sometimes addressed in surveys of the adult population, adolescents are generally not asked questions about the receipt of such counseling. Only one California survey was identified, a small survey of primary care physicians conducted in 1992-1993.²⁴⁴ However, this study relied solely upon physician self-report of their usual screening behavior, and studies suggest that physicians tend to overestimate the frequency with which they perform many preventive services.^{245,246}

Given the questions about the validity of physician self-report data on these issues, the reasonably high rates reported in the small California study should be interpreted with great caution. According to the physicians surveyed, 69 percent reported screening 11-14 year olds for alcohol use and 84 percent reported screening 15-18 year olds for alcohol use during routine physical exams. Reported provision of drug use screening during routine physical exams for the same age groups was found to be 74 percent and 82 percent, respectively. The reported cigarette use screening rates reported by primary care physicians were 76 percent and 86 percent, respectively. The study authors did not observe any significant differences between the rates reported by physicians in HMOs and those practicing in other clinical settings.

Opportunities

Behavioral change interventions delivered in managed healthcare settings can yield positive outcomes. Although integrating these interventions into the care delivery

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system requires ways to identify, maintain and support patients requiring assistance, including trained professionals who can deliver more intensive interventions, the primary care provider plays a central role in initiating and sustaining patients' behavioral changes. Since adolescents are generally healthy and may have infrequent contacts with health providers, seeking ways to promote assessment and counseling against alcohol, drug, and tobacco use in a range of clinical settings accessed by adolescents (e.g., emergency departments, pediatrics, gynecology, sports medicine) may prove beneficial. Time and costs to implement interventions that change behavior present other challenges. The economic impact in clinical settings to change behaviors across interventions is not clear. There is a wealth of information demonstrating economic impacts for smoking cessation; however measurement of the economic impact of prevention of tobacco, alcohol, and other drug use interventions in adolescent populations is rudimentary or incomplete.

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Appendix B-3: Screen for Cervical Cancer

Nationally, cervical cancer is the tenth most common cancer in females. Routine screening for cervical cancer with Papanicolaou (Pap) testing is recommended for all women who are or have been sexually active and who have a cervix. Such screening to detect cervical cancer early is key to reaching the *Healthy People 2010* goal of 2.0 deaths from cervical cancer per 100,000 women.²⁴⁷

Burden

The incidence of invasive cervical cancer has decreased dramatically over the past 40 years due to aggressive early detection programs. Despite these inroads, 16,000 new cases are diagnosed nationally each year and 4,800 women afflicted with the disease die annually. The number of expected new cases of cervical cancer in California in 2001 is 1,765 and the expected number of cervical cancer deaths for this year is 475.²⁴⁸

Trends

The rates of many common cancers have declined significantly since 1990, both nationally and in California. Between 1988 and 1999, invasive cervical cancer incidence (new cases) among California women significantly declined by an average of 1.9 percent per year from 10.1 new cases per 100,000 women in 1988 to 8.5 in 1998. This downward trend in incidence is significant for all race/ethnic groups. Trends in mortality from cervical cancer were generally downward in California, but not significantly so for any of the four major race/ethnic groups. When trends are examined for women of all race/ethnic groups combined, cervical cancer mortality rates for California women have decreased significantly since 1988 by an average of 1.7 percent per year.²⁴⁹

Costs & Benefits

Considerable evidence exists that screening can reduce the number of deaths from cervical cancer. Invasive cervical cancer is preceded in a large proportion of cases by precancerous changes in cervical tissue that can be identified with a Pap test. The costs associated with the diagnosis, treatment and follow-up of early stage cervical cancer are less than one-third of those associated with late, invasive cervical cancer.²⁵⁰ In terms of human costs, if cervical cancer is detected early almost all deaths could be avoided with appropriate treatment and follow-up.²⁵¹

Vulnerable Populations

In 1998, the incidence of invasive cervical cancer was highest among Hispanic women in California (13.4 new cases/100,000 women) – 47 percent higher than the rate among Asian and Pacific Islander women (9.1), 54 percent higher than the rate among African American women (8.7) and twice the rate of non-Hispanic White women (6.6).²⁵² Information from the California Behavioral Risk Factor Survey suggests that Pap testing might have been less utilized by Hispanic women between 1984 and 1997.²⁵³ More

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recent data from the Survey's 1995-1999 analyses indicates that 87 percent of Hispanic women over 200 percent of the federal poverty level had a Pap test in the past three years and 80 percent of poor Hispanic women had also. The comparable screening rates for non-Hispanic White women were 91 percent and 80 percent, respectively. Screening rates are lowest for low-income women, in which rates are about 10 percentage points lower. Rates are also lower for Asian/Pacific Islander women (81 percent for women over 200 percent of the federal poverty level and 70 percent for women with incomes under the poverty level). Among Asians/Pacific Islander women, even the higher income group have rates lower than the poor for most other groups.²⁵⁴ This study also found statistically significant differences in Pap testing between non-Hispanic White women (95 percent) and women in the "Other" racial/ethnic category (84 percent).²⁵⁵ Women with a history of multiple sexual partners, early onset of sexual intercourse, and tobacco smoking may be at higher risk. Infection with human immunodeficiency virus and certain types of human papilloma virus are also at increased risk of cervical cancer.²⁵⁶

California Managed Care Data and Measures

Overall, California HEDIS[®] 2001 data from reporting HMOs indicate that in the year 2000, 76 percent of women aged 21- 64 had received at least one Pap test during the past three years. The rates within individual plans varied substantially, and ranged from a high of 85 percent to a low of only 58 percent. Specifically, the Cervical Cancer Screening measure reflects the percentage of women age 21 through 64 years as of December 31 of the measurement year, who were continuously enrolled during the measurement year (gap of up to 45 days allowed), and who received at least one Pap test during the measurement year or the two preceding years. Evidence of a Pap test can be based upon a submitted claim/encounter with a relevant CPT code or through medical record review.

Self-reported data from the California Behavioral Risk Factor Survey (BRFS) and the Pacific Business Group on Health (PBGH) Physician Value Check Survey found much higher rates of cervical cancer screening. 1999 California BRFS data for women age 18-64 indicate that 94 percent of women reporting membership in an HMO received Pap smears in the past three years, and 93 percent of those in PPOs. These rates were based on responses to the question "A Pap smear is a test where material is taken from the cervix, that is the mouth of the womb, to see if any cancer cells are present. Have you ever had a Pap smear?" and a follow-up question on the length of time since the last Pap smear. (For information on the determination of HMO/PPO status see the Technical Appendix.) The PBGH 1998 Physician Value Check Survey found rates to be 93% for women in Northern California physician groups and 92% in Southern California, although it should be noted that the cervical cancer screening question was only asked of women aged 18-44 years. Both the BRFS and the PBGH surveys are based on self-reported data, and are subject to any limitations on patient understanding and recall that may exist.

It should be noted that none of these three reported data sources allows for the determination of the portion of Pap testing performed as a true preventive service as

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opposed to testing conducted on the basis of patient symptoms. However, a recent Ohio study found that, unlike many other preventive services, Pap testing was infrequently performed for symptoms (6% of the time), and that most utilization does represent prevention.²⁵⁷ It should also be noted that a study on the validity of various methods for obtaining data on preventive service delivery found that, in measuring Pap smears, both medical record review and patient self-report produced valid results when compared to direct observation.²⁵⁸ Although HEDIS[®] protocols allow for the use of medical chart data, administrative data may also be used; it is possible that this results in some degree of underreporting.

Opportunities

Overall cervical cancer screening rates in California range from 76 percent to 94 percent, based on HEDIS[®] measures and self-reports from women. The effectiveness of Pap testing is more likely to be improved by extending the test to women who are not currently being screened and by improving the accuracy of the tests than to increase the frequency of testing. Studies reviewed nationally indicate that incomplete testing is more likely to occur in African American women, uninsured women, the elderly, and those residing in rural areas. In California, low-income women are less likely to be screened than higher income women. The exception is African American women among whom 90 percent reported having had a Pap test in the last three years.²⁵⁹ Additionally, although BRFSS-reported rates were high, in-depth analysis of these data revealed that even within the managed care environment, those in the “other race” category (not white, black or Hispanic) were screened at a significantly lower rate (84 percent). Additionally, interpretive or reporting errors by laboratories, specimen collection errors by clinicians, and inadequate follow-up of abnormal screening tests, and patients who fail to return for further evaluation each pose continued challenges.²⁶⁰

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Appendix B-4: Screen for Hemoglobinopathies, PKU, and Congenital Hypothyroidism in Newborns

Newborn screening programs began in the early 1960s with the development of a screening test for phenylketonuria (PKU) and a system for blood sample collection on filter paper. Since that time, all states and some territories in the United States have included newborn screening as part of their preventive public health system. *Healthy People 2010* has established a developmental (i.e., without baseline information) national objective calling for all newborns to be screened at birth for conditions mandated by their state-sponsored screening programs.²⁶¹

Burden

Sickle cell disease affects about 50,000 Americans of many racial and ethnic backgrounds. The case-fatality rate among persons with sickle cell disease can be as high as 35 percent.²⁶² PKU is an inborn error of phenylalanine metabolism that occurs in 1 of 12,000 births in North America. Absence of treatment leads to severe, irreversible mental retardation.²⁶³ Congenital hypothyroidism occurs in 1 of 3,600 to 4,000 infants. Without prompt treatment, affected children gradually develop growth failure, irreversible mental retardation, and a variety of neuropsychologic deficits.²⁶⁴

Trends

There has been universal public acceptance of newborn screening programs since 1960. All state programs now include screening for PKU and congenital hypothyroidism. More than 40 programs, including California's, also screen for sickle cell disease and most screen for galactosemia. Others screen for cystic fibrosis, other metabolic disorders, and congenital infections. Virtually all states treat or refer for treatment babies with a confirmed diagnosis.

Costs & Benefits

The mass screening of more than 4 million infants each year in the United States has been heralded as cost-effective in reducing illness, disabilities, and death associated with inherited conditions. Early identification and initiation of ongoing treatment of these disorders can prevent severe mental retardation, delayed body growth, damage to major organs, and/or death.

Newborn Screening is recognized nationally as an essential preventive public health measure. All states in the nation and the District of Columbia have established newborn screening programs. The State of California began its Newborn Screening Program in 1966 with testing for PKU. In October 1980, the program was expanded to include galactosemia and primary congenital hypothyroidism, as well as a more comprehensive follow-up system. In 1990, screening for sickle cell disease was added to the State's existing program, which also allowed for the identification of some of the related non-sickling hemoglobin disorders, including some forms of beta thalassemia. In 1999, the Program implemented screening for hemoglobin H and hemoglobin H-Constant Spring Disease. The California Newborn Screening Program currently

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screens almost all babies born in California – over 500,000 babies each year. Babies not born in the hospital must also have this test. It should be done before the baby is six days old since babies can appear very healthy at birth and still have one of these disorders.

Free diagnosis is available for positive screening results at California Children's Services (CCS) – approved hospitals. Very early detection permits the metabolic disorders PKU and galactosemia to be treated with a special diet and hypothyroidism to be treated with thyroid hormone, thus preventing the development of mental retardation and other significant health problems. Fatal infections in newborns with sickle cell disease are prevented with a daily dose of penicillin. Early detection of thalassemia disorders allows for close monitoring for infections and anemia.

The NBS test also identifies healthy infants with hemoglobin traits and provides follow-up counseling and testing to families with babies identified as hemoglobin trait carriers. These babies are not at risk for health problems (due to their carrier status) but the parents may be at risk for having a baby with sickle cell disease in subsequent pregnancies. Supported by a state contract, regional Sickle Cell Counseling Centers offer free family testing and counseling for parents of infants with sickle cell trait, hemoglobin C and hemoglobin D traits.²⁶⁵

Vulnerable Populations

Sickle cell disease occurs in one in every 375 African Americans; one in 3,000 Native Americans; one in 20,000 Hispanics; and one in 60,000 Whites. Certain thalassemias (a second type of hemoglobinopathy) are more common in individuals of Mediterranean, African, or Southeast Asian origin.²⁶⁶

California Managed Care Data and Measures

California data indicate nearly universal screening of newborns for hemoglobinopathies, phenylketonuria, and congenital hypothyroidism, as well as for several additional diseases. Regulations require that hospitals report all babies discharged without a newborn screening test, and all birth registrars are required to report all out-of-hospital births. Although Newborn Screening Program data from the California Department of Health Services, Genetic Disease Branch do not allow for the determination of screening rates specific to managed care organizations, overall statewide data suggest a screening rate of 99.5 percent. Program officials have observed no reason to believe rates are any lower within managed care.²⁶⁷

Opportunities

California universally screens nearly all babies born in the state. Although rare, some disorders may be more uniformly followed than others; follow-up testing and early initiation of preventive treatment may be uneven. In some instances screening is required but reporting of results is not – potentially delaying follow-up. In California, home births and those occurring outside of hospitals may delay testing.

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Appendix B-5: Screen for Hypertension Among All Persons

Epidemiologic and statistical studies have identified several factors that increase the risk of heart disease and stroke. High blood pressure, or hypertension, is known as the “silent” killer because it remains a major risk factor for coronary heart disease (which accounts for the largest portion of all heart disease), stroke, and heart failure. *Healthy People 2010* puts forth four national objectives: (1) reduce the proportion of adults with high blood pressure; (2) increase the proportion of adults with high blood pressure whose blood pressure is under control; (3) increase the proportion of adults with high blood pressure who are taking action to control their blood pressure; and (4) increase the proportion of adults who have had their blood pressure measured within the preceding two years and who can state whether their blood pressure was normal or high.²⁶⁸

Burden

Approximately 50 million adults in the United States have high blood pressure – about 28 percent of adults age 20 years and older. Eighteen percent of those with high blood pressure have it under control (the *Healthy People 2010* target is 50 percent). Eighty-two percent of those with high blood pressure are taking some type of action to control it – e.g., losing weight, increasing physical activity, reducing sodium consumption (the target is 95 percent). Ninety percent of adults have had their blood pressure measured within the past two years and know if it is normal or high (the target is 95 percent).²⁶⁹ Nationwide, the median percentage of adult non-Hispanic Whites who reported ever having been told by a health professional that their blood pressure was high was 23.0 percent. For African Americans, this percentage was 30.9 percent; for Asian/Pacific Islanders, the percentage was 16.3 percent, and for Latinos, the percentage was 18.6 percent. Among American Indians or Alaskan Natives, the percentage reporting ever being told they have high blood pressure was 20.7 percent.²⁷⁰

Trends

In comparison to the national prevalence data cited above, according to the 1999 California Behavioral Risk Factor Survey, 23 percent of California adults report having been told by a health professional that they have high blood pressure. The rates among population subgroups varied: 25.3 percent among non-Hispanic Whites; 34.0 percent among African Americans; 17.6 percent among Hispanics, and 20.4 percent among those in the “other” racial/ethnic grouping.²⁷¹ An examination of trends between 1984 and 1996 conducted by the California Department of Health Services among California adults found no significant changes in the prevalence of high blood pressure similar to the national trends indicating a lack of improvement in the proportion of individuals treated and controlling their high blood pressure over the last decade.²⁷²

Costs & Benefits

Results from several large randomized controlled studies demonstrate that lowering blood pressure in hypertensive adults is beneficial and mortality can be reduced through

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the detection and treatment of high blood pressure. Estimates suggest that an average diastolic blood pressure reduction of 5-6 mm Hg in everyone with hypertension could reduce the incidence of coronary heart disease by 14 percent and the incidence of strokes by 42 percent.^{273,274}

Vulnerable Populations

High blood pressure is more common among African Americans and older persons.

California Managed Care Data and Measures

Over 90 percent of all California adults age 18-64 years enrolled in commercial managed care plans in California report having had their blood pressure checked within the past two years. The reported rate for those in HMOs was 95 percent and in PPOs, the rate was 92 percent.

These data are collected from the 1999 California Behavioral Risk Factor Survey and are based on self-reported information obtained during a telephone survey. Respondents were asked about how long it had been since they last had their blood pressure taken by a doctor, nurse, or other health professional, and responses were coded into several different categories, including “within the past year,” “within the past 2 years,” “within the past 5 years.” For those reporting they had received testing, follow-up questions were asked about high blood pressure and its control. For information on the classification of respondents into HMO plans, see the Technical Appendix.

Opportunities

Between 92 and 95 percent of California adults in managed healthcare organizations have had blood pressure checks within the past two years. Despite these higher rates of screening, management and control of high blood pressure continue to prove challenging. Hypertension (generally defined as having a blood pressure measurement of 140 mm Hg/90 mm Hg or above) is not diagnosed on the basis of a single reading. Once confirmed, patients usually receive appropriate counseling regarding modifiable risk factors (weight, physical activity, sodium consumption and alcohol consumption). The decision to initiate drug therapy includes consideration of the level of high blood pressure elevation, age, presence of other cardiovascular disease risk factors (e.g., tobacco use, high blood cholesterol), and other diseases or conditions. Clinicians should be aware of recent guidelines for high blood pressure control, as well as current techniques for improving compliance. Recent studies have called attention to the fact that individuals with high-normal blood pressure (130-138 mm Hg/85-89 mm Hg) are two to three times more likely to suffer a heart attack, stroke, or heart failure in ten years than are those with what is considered ideal blood pressure (less than 120/80).²⁷⁵

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Appendix B-6: Vaccinate Adults Against Influenza and Pneumonia (Adults Aged 65 Years and Older)

Infectious diseases remain major causes of preventable illness, disability and death, especially among older adults. The *Healthy People 2010* national objectives establish a target of 90 percent vaccination rate – annually for vaccination against influenza and even for vaccination against pneumococcal disease – for the non-institutionalized adult population age 65 and older. The national rates as reflected by the 1998 baseline data are at 64 and 46 percent, respectively.²⁷⁶ At 69.3 percent for influenza vaccination and 62.9 percent for pneumococcal vaccination, more recent national data indicate increased coverage rates among older adults.²⁷⁷ Immunization rates for California's general senior population are comparable to the national rates for the general older population. Seventy percent were immunized against influenza and 61 percent were immunized against pneumococcal disease.²⁷⁸

Burden

Pneumococcal disease and influenza account for more than 30,000 deaths nationally each year, most of which occur in elderly persons. Twenty thousand or more excess deaths from influenza were reported in each of the ten epidemics that occurred in the United States from 1972 to 1991 and 40,000 excess deaths occurred in three large pandemics that occurred during that time. More than 90 percent of deaths attributed to pneumonia and influenza during these epidemics were in persons aged 65 and older. Pneumococcal disease accounts for 15 percent of community-acquired pneumonia. The highest case-fatality rates occur in elderly persons and patients with other medical conditions.²⁷⁹

Trends

Vaccination rates among adults aged 65 and older have increased over the last decade or so. National influenza vaccine coverage rates were up from 33 percent in 1989 to 64 percent in 1998 and pneumococcal vaccine coverage rates increased from 15 percent to 46 percent during that same time period. Information from the 2000 California Behavioral Risk Factor Survey shows further increases in vaccination rates for both influenza and pneumococcal disease. Despite these increases, coverage rates for certain racial and ethnic groups remain below that of the general population.²⁸⁰ Even with relatively high rates of coverage, continued vigilance is necessary. Nationally, drug-resistant strains of *Streptococcus pneumoniae* have emerged – as much as 15 percent of isolates are drug resistant in some locales – and this fact, along with the aging of the general population, underscores the importance of preventing pneumococcal disease by vaccination.²⁸¹

Costs & Benefits

Both observational and case-controlled trials conducted during outbreaks support the efficacy of influenza vaccine in preventing illness, hospitalization, and mortality in institutionalized older persons and in community-dwelling persons with high-risk chronic

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conditions. Case controlled studies in persons age 65 and older reported during epidemic conditions that vaccination prevented 31-45 percent of the hospitalizations that would be expected due to pneumonia and influenza and 43-49 percent of deaths that would be expected from respiratory conditions when the control group was compared to the unvaccinated cohort.²⁸²

Vulnerable Populations

For influenza, vulnerable populations include persons age 65 and older, those who are residents of chronic care facilities, and those suffering from cardiopulmonary disorders, metabolic diseases, including diabetes mellitus, hemoglobinopathies, immunosuppression, or renal dysfunction. For pneumococcal disease, vulnerable populations or high-risk groups are those with chronic cardiac or pulmonary disease, diabetes mellitus, anatomic asplenia and populations identified as being at increased risk (Native American and Native Alaskan populations).²⁸³ Data from the 1999 California Behavioral Risk Factor Study also suggest that pneumonia vaccination rates for older adult African Americans and Hispanics in California are lower than for non-Hispanic Whites (64 percent), and are even below 50 percent, with estimates of 37 percent among African American and 42 percent among Hispanic Californians. There appears to be less of a disparity between groups for influenza vaccination coverage.²⁸⁴

California Managed Care Data and Measures

Most recent available data on influenza and pneumococcal vaccination of seniors in California's managed care organizations suggest that plans are making progress, although rates are still far below the 90 percent targets. Rates are slightly higher for influenza vaccination than for pneumococcal vaccination.

Influenza vaccination rates self-reported in the 1999 California BRFs telephone survey were 78% (95% confidence interval: 73-83%) for those in HMOs and 74% (95% CI 58-90%) for those in PPOs. These rates represent the percentage of adults age 65 and older who are members of an HMO or PPO and who reported that they had had a flu shot in the past 12 months. (For information on the classification of BRFs respondents into HMOs/PPOs, see the Technical Appendix.) Since these BRFs data are the result of ongoing data collection during the first nine months of 1999, and since the flu shot question concerns the previous 12 months, these overall vaccination coverage rates are likely more representative of service delivery during 1998 than 1999, although both years are covered. Additional immunization data from member self-reporting on the Medicare Managed Care Consumer Assessment of Health Plans Study (MMC-CAHPS) 2000 survey resulted in an estimated influenza vaccination rate of 76 percent for 1999. The MMC-CAHPS survey asked specifically about receipt of a flu shot during September through December of 1999. Neither the CA BRFs nor the MMC-CAHPS data presented herein are specific to flu shots received through the managed care organization; vaccination obtained from another location, such as a pharmacy or grocery store vaccination event, would also be counted.

Pneumococcal vaccination rates from the 1999 CA BRFs indicate that approximately 62% (95% CI 56-68%) of the seniors in HMOs and 56% (95% CI 38-75%) of those in

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PPOs had ever received a pneumonia shot. MMC-CAHPS 2000 data put the figure slightly higher at 68%; this was based on a more elaborate question: “Have you ever had a pneumonia shot? This shot is usually given only once or twice in a person’s lifetime, and is different from the flu shot. It is also called a pneumococcal vaccine.”

It should be noted that both BRFS and CAHPS data are based on member self-report, so may be subject to limitations on patient recall and understanding. However, a study on the validity of various methods for obtaining data on preventive service delivery found that, in measuring influenza vaccination, both medical record review and patient self-report produced valid results when compared to direct observation.²⁸⁵ The validity of self-report on pneumococcal vaccination was not specifically addressed.

Opportunities

Current vaccination levels of coverage vary widely among age, risk, and racial/ethnic groups. Studies have consistently shown that focusing efforts to improve coverage on healthcare providers and healthcare systems is the most effective means of increasing vaccine coverage in adults. All healthcare providers should routinely assess the vaccination status of their older adult patients. Health plans should develop mechanisms for assessing the vaccination status of enrolled members seeking services. Nursing home and hospitals should ensure that policies exist to promote vaccination. Influenza and pneumococcal vaccines are covered by Medicare; vaccinating greater proportions of older adults should be feasible.

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Appendix B-7: Screen for High Blood Cholesterol (Men Aged 35-65; Women Aged 45-65)

High blood cholesterol is a major risk factor for coronary heart disease, which accounts for the largest proportion of all heart disease in the United States. More than 50 million American adults have high blood cholesterol at levels that require treatment.²⁸⁶ More than 90 million adults have cholesterol levels that are higher than desirable.²⁸⁷

Screening for coronary heart disease risk factors (e.g., high blood cholesterol levels) is an important first step in delaying or preventing disease progression. One of four national objectives, published in *Healthy People 2010*, address screening – that is, to increase the proportion of adults age 18 and older who have had their blood cholesterol checked within the preceding five years. At baseline, 67 percent of U.S. adults have done so; the target goal for 2010 is to increase that proportion to 80 percent.²⁸⁸

Burden

Coronary heart disease is one of the leading causes of death in the United States, accounting for approximately 490,000 deaths annually. In 1995 alone, it accounted for over \$60 billion in medical expenses and lost productivity. Elevated blood cholesterol is one of the major identifiable risk factors for this major cause of mortality. Early screening of blood cholesterol levels leading to lowered blood cholesterol levels, can significantly reduce the risk of coronary heart disease and the impact of deteriorating cardiovascular health on our society. Lifestyle changes that prevent or lower cholesterol levels include eating a diet low in saturated fat and cholesterol, increasing physical activity, and reducing excess weight.²⁸⁹

Trends

Consumption of saturated fat, total fat, and cholesterol declined during the 1980s and 1990s and the average blood cholesterol levels in American adults also dropped from 213 mg/dL in 1978 to 203 mg/dL in 1991. National data indicate that the prevalence of high blood cholesterol requiring advice and treatment fell from 36 percent to 29 percent.²⁹⁰

Costs & Benefits

The purpose of screening for high blood cholesterol in these age groups is to identify those who would benefit from cholesterol-lowering interventions to reduce the risk of coronary heart disease. The increase in screening over the past decade has been accompanied by improvements in dietary knowledge on fat consumption, average cholesterol levels and coronary heart disease mortality. It is difficult to isolate the contribution of screening from these other secular changes. Cholesterol screening is important to identify high-risk individuals who are most likely to benefit from individualized dietary counseling and drug treatment. There is good evidence that lowering cholesterol by any means can reduce the risk of coronary heart disease. The evidence is strongest for middle-aged men and by extrapolation decade-older women.²⁹¹

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Vulnerable Populations

Coronary heart disease afflicts both men and women with incidences increasing in direct correlation with age. There is some evidence that estrogen delays the onset of coronary heart disease by some ten years or so, demonstrated by lower cholesterol levels and lower incidence of coronary heart disease among pre-menopausal women. Still 49 percent of coronary heart disease deaths occur in women. Other risk factors for coronary heart disease include male gender, cigarette smoking, and comorbidities such as hypertension and/or diabetes mellitus.

California Managed Care Data and Measures

California Behavioral Risk Factor Survey (BRFS) data indicate that the majority of managed care members in the targeted age-sex groups—males age 35-65 and females age 45-65—are in fact receiving routine cholesterol testing. Analysis of the 1999 BRFS telephone survey responses found that approximately 80 percent (95 percent CI 77-84 percent) of such persons in HMOs and 84 percent (95 percent CI 79-89 percent) in PPOs reported they had been screened within the past five years. These findings were based on responses to two separate questions: “Blood cholesterol is a fatty substance found in the blood. Have you ever had your blood cholesterol checked?” and, for those responding in the affirmative, “About how long has it been since you last had your blood cholesterol checked?” Responses to the latter were coded into one of several answers, including “within the past five years” and “more than five years ago.” A follow-up question on high cholesterol was also asked.

Opportunities

While managed care rates for the target population are at 80 percent, efforts to improve screening for high blood cholesterol among the target age groups, as well as across all adult age groups (to meet the *Healthy People 2010* goal), will be needed to continue to improve cardiovascular health.²⁹² The average person can expect to live 5.5 years longer than he or she did 30 years ago due to progress against cardiovascular diseases, including coronary heart disease and stroke. Work remains to ensure that all segments of the population benefit from this progress. Recently, the USPSTF broadened its 1996 recommendations concerning blood cholesterol screening by saying that such screening should not have an upper age limit (previously, it had been set at age 65) and issued a new recommendation calling for screening beginning at age 20 if risk factors are present.²⁹³ While a good deal of progress has accrued due to positive changes in lifestyle – lower fat consumption and decreased prevalence of smoking – America is experiencing an epidemic of obesity among adults and young people. Persistent low rates of physical activity and adolescent tobacco use remain as challenges. Health behavior change within managed care, including the integration of counseling interventions hold promise for the future.

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APPENDIX C: DATA SOURCES AND ADDITIONAL TABLES

California Behavioral Risk Factor Survey (CA BRFs) and Analyses by H. H. Schauffler et al.

BRFS Survey

The Behavioral Risk Factor Survey is an ongoing collaborative effort of the California Department of Health Services, the Public Health Institute and the Centers for Disease Control and Prevention (CDC). This is an annual, ongoing random sample telephone survey of the civilian, noninstitutionalized California adult (18 years and over) population. Conducted since 1984, this survey collects information on a wide variety of health-related behaviors. The questionnaire is developed each year by the CDC and collaborating state agencies, and consists of three components: a core survey administered by all states participating in Behavioral Risk Factor Surveillance System, standard topical modules that states can add as they please, and additional local interest questions designed and administered by individual states. Not all questions are used each year; some core questions are rotated and asked only in alternate years. The instrument includes more than 200 questions, although due to skip patterns some interviews consist of fewer than 100.

California data used in this report are from the 1999 and 2000 BRFs. Total sample size for 1999 was 4149, and 4017 for 2000; sample sizes for individual questions are often lower. Two response rates were calculated: an “upper-bound” rate and a CASRO (Council of American Survey Research Organizations) rate. The upper-bound and CASRO rates, respectively, were 82% and 58% for 1999, 66% and 47% for 2000. Because the age, race and sex distributions of the sample do not completely match the adult California population, the sample is weighted to the California 1990 population to adjust for these factors.

Many of the questions on which the analyses in this report were based were added by the Health Insurance Policy Program at the UC Berkeley Center for Health and Public Policy Studies. See below for further details.

BRFS data are subject to several limitations. First, only persons with a telephone in the household are included. Second, responses are self-reported, and are not validated through medical record review and confirmation of insurance details. Third, because response rates are fairly low, there is a possibility of non-response bias.

Analyses by H. H. Schauffler et al.

The Health Insurance Policy Program (HIPP) at U.C. Berkeley added questions on insurance coverage to the 1999 California BRFs, and was then able to categorize managed care respondents into three categories: staff/group HMO, IPA/network HMO, or PPO. An early question asked the name of the respondent’s health plan, and at the

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end of the survey respondents were asked to locate their health insurance cards and provide the health plan name as printed on the card. For the 60% that located their cards, plan information taken from the card agreed with their recalled plan 97% of the time. However, card information often provided additional details regarding plan model (i.e., Blue Cross *CaliforniaCare*, rather than just Blue Cross), and this more specific information was helpful in category assignment. Respondents were also asked questions pertaining to physician networks, primary care provider selection requirements, and access to specialists. For those who could not be classified into one of the three managed care organization categories solely on the basis of the plan name reported, analysis of responses to these additional questions was coupled with data on the types of products offered by each California HMO. If the managed care organization was known to offer a product of the same category as that suggested by the three additional question responses, the respondent was assigned to that category. This methodology allowed for the categorization of 95% of survey respondents by health care plan type. The 5% that could not be classified were excluded from these BRFS analyses.

Several of the results presented in this report have been previously published. Many can be found in *The State of Health Insurance in California, 1999* report by H. H. Schauffler and E. R. Brown, published by the Regents of the University of California in January 2000. Additional sources include an article entitled “Adoption of the AHCPR Clinical Practice Guidelines for Smoking Cessation: A Survey of California’s HMOs” (*American Journal of Preventive Medicine*, 2001;21(3):153-161), as well as an article, “Assessing PPO Performance on Prevention and Population Health” (*Medical Care Research and Review*, 2001; 58(s1):113-137. Finally, UC Berkeley Center for Health and Public Policy staff conducted new analyses specifically for this report; these were completed in September and October of 2001 and are not published elsewhere.

All analyses above were conducted using data from the first 9 months of 1999. Most analyses used data on respondents aged 18 through 64 years of age, although some analyses used further restricted age groups and others used data on the population aged 65 years and older only. In addition, managed care categories were condensed into two groups, HMO (staff/group HMO and IPA/network HMO categories combined) and PPO. Medi-Cal and Medicare managed care respondents were included in the analyses unless age criteria made exclusion necessary.

HEDIS[®] (Health Plan Employer Data and Information Set)

Sponsored by the not-for-profit National Committee for Quality Assurance (NCQA), HEDIS[®] is a standardized set of performance measures used by about 90 percent of the nation’s health maintenance organizations (HMOs) to collect and report information on the quality of health care and service delivery. HEDIS[®] reporting is voluntary for HMOs; some plans allow their results to be publicly reported, others submit data for use in the calculation of averages, and others may not report at all.

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HEDIS[®] data are collected by the California Cooperative Healthcare Reporting Initiative (CCHRI), a collaborative of health care plans, purchasers and providers that collects and provides public results on the quality of California's HMOs and medical groups. Seventeen California HMOs report data to CCHRI, including all the large plans in the state.

There are over fifty HEDIS[®] measures. Reporting is based on administrative data and/or medical charts, as well as results of the NCQA Member Satisfaction Survey, which is sent to 1500 random commercial enrollees in each plan. Independent contractors evaluate and analyze the data provided by plans. In some instances, other data collection methods are used.

Data in this report are based upon several HEDIS[®] 2001 measures covering services provided during 2000. HEDIS[®] 2001 California data cover approximately 95% of the California population covered by commercial HMOs in the state. Although HEDIS[®] data are collected for commercial HMOs, Medicaid HMOs and Medicare HMOs, most of the data presented in this report are limited to commercial HMOs (i.e., enrollment via employer group policy or individual or family policy, not via Medicaid or Medicare). Medicare plan data are used, however, for HEDIS[®] measures specific to adults aged 65 years and older. These data were obtained from CMRI, and are based on results of the Medicare Managed Care Consumer Assessment of Health Plans Study 2000 survey (see below).

A primary limitation of the HEDIS[®] data is the voluntary nature of reporting. NCQA analyses have found that NCQA-accredited plans outperform non-accredited plans, and publicly reporting plans outperform non-publicly reporting plans. Published HEDIS[®] results are therefore likely to be somewhat higher than are those for the HMO population as a whole. In addition, HEDIS[®] data collection methods pose limitations. Low response rates to the member satisfaction survey used in determining delivery rates for some measures may introduce non-response bias, while for measures that rely upon administrative records and medical charts the validity of the results will be influenced by the completeness and accuracy of the records on which they are based.

Medicare Managed Care Consumer Assessment of Health Plans Study

The Consumer Assessment of Health Plans Study (CAHPS) survey is a widely used consumer survey regarding experiences with health plans. The CAHPS questionnaire was developed by the Agency for Healthcare Policy and Research (now the Agency for Healthcare Research and Quality), and was updated in 1998 to include some items from the National Committee for Quality Assurance (NCQA) Member Satisfaction Survey, as well as a HEDIS[®] supplemental set of items. Back in 1997, the Health Care Financing Administration (now the Centers for Medicare & Medicaid Services) began requiring Medicare managed care plans to report on HEDIS[®] performance measures and to participate in an independently administered Medicare satisfaction survey, the Medicare version of the Consumer Assessment of Health Plans Study.

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Data contained in this report are from the Medicare Managed Care Consumer Assessment of Health Plans Study (MMC-CAHPS) 2000 survey, covering data on services performed in 1999. The data presented herein are also specific to Medicare + Choice organizations in California, and were obtained from CMRI, the federally funded, non-profit, health information and quality improvement organization charged with improving the quality of care in Medicare in California.

As these data are obtained through patient self-report, they are subject to limitations of patient recall. In addition, there is a possibility that those who responded to the survey are different than those who did not, which would affect the generalizability of the results.

California Women's Health Survey

The California Women's Health Survey (CWHs) is an annual survey, supported by the California Department of Health Services, the California Department of Mental Health, the California Department of Alcohol and Drug Programs, CMRI, and the Public Health Institute. This is an annual, ongoing random sample telephone survey of adult women (aged 18 years and older) living in households with telephones. Conducted since 1997, this survey collects information on a variety of health-related behaviors and attitudes. The questionnaire was developed by the California Women's Health Survey Group and Survey Research Group (SRG) staff. The questionnaire can be changed each year to reflect topical interest.

CWHs data used in this report are from the 2000 survey and represent preliminary data. Total sample size for 2000 was 4012; sample sizes for individual questions are often lower. Two response rates were calculated: an "upper-bound" rate and a CASRO (Council of American Survey Research Organizations) rate. The upper-bound and CASRO rates, respectively, were 74% and 38%. Because the age and race distribution of the sample does not completely match the adult female California population, the sample is weighted to the California 1990 population.

Chlamydia screening rates by age and HMO enrollment status, as presented in this report, are based on unpublished data from the California Department of Health Services, Sexually Transmitted Disease Control Branch. These special analyses were conducted in September of 2000.

These data are subject to several limitations. First, only women with a telephone in the household are included. Second, responses are self-reported, and not validated through medical record review and confirmation of insurance details. Third, because response rates are fairly low, there is a possibility of non-response bias.

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Vision Service Plan (VSP) Administrative Data

Vision Service Plan (VSP) is the nation's largest provider of eye care wellness benefits. As one of the largest vision coverage plans in California, they provide vision benefits to over 2.7 million managed care members. VSP originated in California and has operated in the state since the 1950s.

To estimate delivery of vision screening examinations to the elderly managed care population in California, VSP administrative data on VSP members aged 65 years and older enrolled in Medicare health plans were used. These data covered over 500,000 members, enrolled in seven Medicare managed care health plans. Enrollees in employer plans (i.e. covered employees working past age 65, and covered retirees) were excluded from the sample population for three primary reasons: such members are likely to also be eligible for and may be receiving Medicare benefits; confirmation of California residency for the covered retirees was problematic; and the small number of elderly employer plan members was believed to be too small to warrant the complexity of analysis inclusion would have entailed.

Determination of the vision screening rates was based on analysis of paid claims for dates of service in 2000. VSP denials for initial well vision exams are rare, and the claims database is considered to be over 99% complete for year 2000. The analysis focused on well vision exams only; medical vision exam codes, if covered through VSP, were excluded, as these exams are considered to represent disease management or symptom treatment rather than true screening. Multiple exams to the same individual within a health plan were counted as a single exam, although if an individual received exams under multiple health plans these would be counted multiple times. Due to concerns over data reliability, out-of-network exams were excluded from the analysis; however, these are estimated to represent less than 0.1% of the exams provided. The total number of qualifying exams was obtained for the year, both overall and by individual plan. These figures were then divided by the corresponding average monthly membership figures to provide estimates of the annual screening rates.

The VSP administrative claims data are subject to several limitations. First, although most vision screening recommendations suggest that adults receive biennial exams, due to the additional time and complexity that such an analysis would have entailed, we were only able to obtain VSP estimates for annual screening rates at this time. However, analyses looking at continuous enrollment and screening within larger timeframes are possible. Second, because members are assigned new identification numbers if they switch plans, there is a possibility that some members are counted multiple times, which would skew screening rate downward.

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California Employer Health Benefits Survey

The California Employer Health Benefits Survey was conducted in 1999 by the Kaiser Family Foundation, the Health Research and Educational Trust, and the University of California, Berkeley, Center for Health and Public Policy Studies. This survey was based on a national employer survey conducted annually by the Kaiser Family Foundation and the Health Research and Educational Trust, which was previously conducted by KMPG Peat Marwick LLP. The California Employer Health Benefits Survey was a random sample survey of employee benefit managers of private firms with three or more workers in California. The sample was drawn from the Dun and Bradstreet list of private employers with three or more workers. The number of interviews completed was 743, and the response rate was 50%. For data reporting purposes, firms were aggregated into a limited number of firm size and industry type categories.

Physician Value Check Survey

The Physician Value Check survey was conducted in 1996 and 1998 by the Pacific Business Group on Health. This was a two-year longitudinal study designed to track the quality of care for a cohort of managed care patients enrolled in medical groups and IPAs, and several of the questions pertained to preventive services and counseling. Fifty-eight medical groups and IPAs participated in the survey; most were in California, although there were a few in Oregon and Washington as well. The survey was conducted by mail, although telephone reminders were provided. Individuals aged 18-70 years were included in the survey, with those aged 50-70 oversampled to improve tracking of changes in functional status. For the 1996 survey, one thousand HMO plan members who had at least one physician visit in 1995 were randomly selected from each of the 58 groups, and approximately half of those returned surveys. The 1998 survey sample consisted of those who had completed surveys in 1996, as well as an additional 650 members, who had at least one physician visit in 1997, from within each physician group. In total, over 74,000 surveys were mailed in the summer of 1998, with nearly 32,000 returned. Non-respondents were provided with telephone reminders.

Physician Value Check data used in this report are from the 1998 survey. The sample was weighted for sex and age within each group. The rates presented in this report are based on unpublished survey findings from the Pacific Business Group on Health. Results were calculated separately for Northern California and Southern California physician groups, and these rates, rather than overall state averages, are presented here. These data are subject to several limitations. First, only those able to read the mailed survey (or have it completed for them) would have been able to respond. Second, responses are self-reported, and not validated through medical record review. Third, because response rates are fairly low, there is a possibility of non-response bias.

DO NOT CIRCULATE**Additional Data Tables**

Table C-1: America's Health - A Call to Action for People and Their Communities

California's Overall Ranking	<u><i>Rank out of 50 States</i></u>
Lifestyle	22
Prevalence of Smoking	1
Motor Vehicle Deaths	7
Violent Crime	41
Heart Disease Risk	21
Access	
Adequacy of Prenatal Care	18
Lack of Health Insurance	45
Unemployment	41
Disease	
Heart Disease Deaths	20
Cancer Cases	4
Infectious Disease Cases	44
Deaths	
Total Mortality	17
Infant Mortality	7
Premature Deaths	17

Source: United Health Foundation, State Health Rankings – 2001 Edition, September 2001.

Table C-2: Tobacco Use Assessment and Counseling in California's Managed Care Population, 1998-2000

Recommended Service, and Specific Measures Reported	Estimated Delivery Rate	Range/ Confidence Interval	HP 2010 Targets
Assess adults for tobacco use and provide tobacco cessation counseling			
Smokers			
Smokers and recent quitters aged 18 years and older who had seen a health practitioner in the year and who received advice to quit smoking during the year	55% ¹	-- ²	
Smokers aged 18-64 years who reported that their physician had discussed smoking with them in the past 3 years	HMOs: 66% PPOs: 61% ³	HMOs: 60-72% PPOs: 50-73% ³	
Healthy People 2010 Objective: Increase counseling on health behaviors among adult smokers aged 18 years and older with a physician visit in the past year			-- ⁴
Overall			
Adults aged 18-64 years who reported that their physician had discussed smoking with them in the past 3 years	HMOs: 30% PPOs: 24% ³	HMOs: 28-32% PPOs: 20-28% ³	
Adults aged 18-70 years in physician groups who reported that their doctor or other health professional had discussed smoking with them in the past 2 years	20-21% ⁵		
Non-Smokers			
Never smokers aged 18-64 years who reported that their physician had discussed smoking with them in the past 3 years	HMOs: 19% PPOs: 16% ³	HMOs: 17-22% PPOs: 12-20% ³	
Insurance Benefits			
Covered workers aged 18-64 years in employer-sponsored HMOs with behavioral smoking cessation program as a covered benefit	30% ⁶		
Healthy People 2010 Objective: Increase insurance coverage of evidence-based treatment for nicotine dependency (in managed care organizations)			100%

¹California HEDIS® 2001 data (for year 2000); as reported by CCHRI

²Response rates insufficient to determine estimates for individual plans.

³California BRFSS 1999; based on analysis conducted by Health Insurance Policy Program, UC Berkeley in September-October 2001. Ranges, if presented, reflect 95% confidence intervals on estimates.

⁴This is a Healthy People 2010 objective, although baseline and target data have not yet been established.

⁵PBGH Physician Value Check Survey, 1998. Range reflects independent rates for Northern and Southern California.

⁶Kaiser/HRET/UC Berkeley California Employer Health Benefits Survey, 1999; as reported in Schauffler HH and Brown ER, *The State of Health Insurance in California*, 1999.

Table C-3: Colorectal Cancer Screening in California's Managed Care Population, 1998-1999

Recommended Service, and Specific Measures Reported	Estimated Delivery Rate	Range/ Confidence Interval	HP 2010 Targets
Screen for colorectal cancer (FOBT and/or sigmoidoscopy) among all persons age 50 and over.			
1 year and 5 years			
Adults age 50 years and older who received a fecal occult blood test (FOBT) within the past year and/or a sigmoidoscopy/colonoscopy within the past five years	HMOs: 45% PPOs: 39% ¹	HMOs: 39-51% PPOs: 30-48% ¹	
Adult members of medical groups/IPAs, age 50 years and older, who received a fecal occult blood test (FOBT) within the past year and/or a sigmoidoscopy/colonoscopy within the past five years	No. CA: 65% So. CA: 65% ²	No. CA: 63-67% So. CA: 63-66% ²	
2 years and Ever			
Healthy People 2010 Objective: Increase the proportion of adults who receive a colorectal cancer screening examination:			
(a) Adults aged 50 years and older who have received a fecal occult blood test (FOBT) within the preceding two years			50%
(b) Adults aged 50 years and older who have ever received a sigmoidoscopy			50%

¹California BRFS 1999; as reported in Schauffler, H and McMenamin, S. Assessing PPO Performance on Prevention and Population Health. *Medical Care Research and Review*, 2001; 58(s1):113-137. Ranges, if presented, reflect 95% confidence intervals on estimates.

²PBGH Physician Value Check Survey, 1998. Range reflects independent rates for Northern and Southern California.

Table C-4: Vision Screening Among Older Adults in California's Managed Care Population, 2000

Recommended Service, and Specific Measures Reported	Estimated Delivery Rate	Range/ Confidence Interval	HP 2010 Targets
Screen for vision impairment among adults aged 65 and over			
VSP Medicare managed care members aged 65+ who received a well vision exam in the year 2000	36% ¹	28-42% ²	-- ³

¹VSP Administrative Claims Data for 2000; unpublished analysis conducted September-October 2001

²Range represents variation in results for individual plans.

³No target specific to this age group

Table C-5: Chlamydia Screening in California’s Managed Care Population, 1999-2000

Recommended Service, and Specific Measures Reported	Estimated Delivery Rate	Range/ Confidence Interval	HP 2010 Targets
Screen for chlamydia among women aged 15 to 24 years			
Age 20 and under			
Sexually active women aged 16-20 who received at least one test for chlamydia during the year	19% ¹		
Women aged 18-19 years old who received a chlamydia test in the past 12 months	53% ²	-- ²	
Over age 20			
Sexually active women aged 21-26 who received at least one test for chlamydia during the year	16% ¹		
Women aged 20-24 years old (and reporting a new male sexual partner in the past 12 months) who received a chlamydia test in the past 12 months	43% ²	-- ²	
Overall			
Healthy People 2010 Objective: Increase the proportion of sexually active females aged 25 years and under who are screened annually for genital chlamydia infections			-- ³

¹California HEDIS® 2001 data (for year 2000); as reported by CCHRI

²California Women’s Health Survey 2000; unpublished preliminary data from California Department of Health Services, Sexually Transmitted Disease Control Branch. Confidence intervals were not obtained for preliminary data.

³This is a Healthy People 2010 objective, although baseline and target data have not yet been established.

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Table C-6: Problem Drinking Assessment and Counseling in California's Managed Care Population, 1998-2000

Recommended Service, and Specific Measures Reported	Estimated Delivery Rate	Range/ Confidence Interval	HP 2010 Targets
Screen for problem drinking among adults and provide brief counseling			
At risk for alcohol abuse			
Adults aged 18-64 years at risk for alcohol abuse who reported that their physician had discussed alcohol with them in the past 3 years	HMOs: 27% PPOs: 34% ¹	HMOs: 21-32% PPOs: 24-44% ¹	
Healthy People 2010 Objective: Increase the proportion of persons appropriately counseled about health behaviors: reduced alcohol consumption (adults aged 18 years and older with excessive alcohol consumption)			-- ²
Overall			
Adults aged 18-64 years who reported that their physician had discussed alcohol with them in the past 3 years	HMOs: 21% PPOs: 18% ³		
Adult members of medical groups/IPAs, aged 18-70 years, who reported that their doctor or other health professional had discussed alcohol/substance abuse with them in the past 2 years	No. CA: 10% So. CA: 8% ⁴	No. CA: 9-11% So. CA: 7-9% ⁴	

¹California BRFS 1999; based on analysis conducted by the Center for Health and Public Policy Studies, UC Berkeley in September-October 2001. Ranges, if presented, reflect 95% confidence intervals on estimates.

²This is a Healthy People 2010 objective, although baseline and target data have not yet been established.

³California BRFS 1999; as reported in Schauffler HH and Brown ER, The State of Health Insurance in California, 1999

⁴PBGH Physician Value Check Survey, 1998. Range reflects independent rates for Northern and Southern California.

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